

Volume XXI. Number 4

July 25, 1906

MUNICIPAL JOURNAL AND ENGINEER



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SPECIAL NOTICE

In the respective following issues of the Municipal Journal and Engineer considerable space will be devoted specially to the subjects as indicated:—

—1906—

- August 1st - - - SANITATION
—Smoke Prevention, Street Sprinkling and Cleaning.
- September 5th - - - THE CITY BEAUTIFUL
—Parks, Monuments, etc.
- October 3d - - - FIRE AND POLICE
- November 7th - - - LIGHTING
—Gas, Electricity, Etc.
- December 5th - - - BRIDGES

MUNICIPAL JOURNAL AND ENGINEER

VOLUME XXI.

NEW YORK, JULY 25, 1906.

No. 4.

Published every Wednesday by

THE MUNICIPAL PUBLISHING COMPANY

Flatiron Building, Madison Square,
New York City

Telephone, 6723 Gramercy, New York

Entered as second-class matter, January 3, 1906, at the Post Office
at New York, N. Y., under the Act of Congress of March 3, 1879.

TERMS OF SUBSCRIPTION, PAYABLE IN ADVANCE

United States and possessions, Canada, Mexico, Cuba, \$3.00 per year
All other countries 4.00 per year

Make all checks payable to The Municipal Publishing Company.

Readers are invited to contribute to the MUNICIPAL JOURNAL
AND ENGINEER, either in the form of special articles or of letters
discussing matters of current interest.

It is also desired that the facilities furnished by the reference
library in this office should be widely known and freely used by
those interested in municipal affairs. Visitors will be welcomed
and provided with conveniences for search, and inquiries by mail
will be promptly dealt with.

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Spotting the Spitters

THE news that the Board of Health of Summit, N. J., has found it necessary to pass an ordinance, providing for a fine for expectorating in public places, coupled with the fact that no other than a Waldorf-Astoria guest was recently arrested for this offence, is evidence that the horrible nuisance has not yet been abolished, in spite of all kinds of reproaches, arguments and warnings. Not only is the practice almost hopelessly filthy, but it is an intensely selfish one, because it is a mere matter of habit, not a necessity, and is as inexcusable as it is vile. Most habits are capable of being eradicated. This one apparently not, under the existing laws. It is harmful, not only to the individual who is addicted to it—for it means irreparable dyspepsia if persisted in—but it also makes it possible for a number of diseases being inflicted upon those who are compelled to be in the proximity of the noxious spitter.

While there is a great improvement, thanks to the official cognizance of the evil, and more consideration is being shown by those guilty of the habit, it is yet far too prevalent in our midst for safety, and short, sharp measures should be promptly taken to further curb it. Not long ago a close examination was made one morning, between 8.30 and 9, at the time business people were wending their way to their offices, of the section of sidewalk from Twenty-third street to Seventeenth street, on the west side of Fifth avenue, New York City. There were counted in these half dozen blocks no less than one hundred and eighty-five recent expectorations, seventy-three damp remnants of exhausted chews, forty-eight cigar stumps and a number of cigarette ends. It may easily be imagined what the state of the sidewalk in a busy thoroughfare must be—say a crowded part of Broadway. This reeking accumulation has to remain exposed to a hot Sun until trodden under foot and transported almost everywhere, or perhaps later on taken up by the trains of shopping ladies' dresses. If the Mikado, as the opera has it, could "make the punishment fit the crime" under circumstances such as these, he would compel everyone who outrages decency and health in this flagrant manner to wear a cuspidor suspended from his neck for the rest of his natural life, and we could not blame him.

Cement and Concrete

IN no branch of work in this country has such growth been experienced as in the cement and concrete industries. The Portland cement trade alone is claimed to have passed the \$80,000,000 point in 1905, while reporting a shortage of no less than 14,000,000 barrels, thus much inconveniencing and retarding building operators and operations. It is stated that while in ten years the steel trade of the United States has increased eightfold, the trade in cement has increased eight hundred fold. Into almost every form of municipal construction work, from a pipe to a pile, up to a reservoir, concrete enters. In its manufacture many by-products, that were originally at much expense thrown away, are now profitably made use of. There is cement in existence, notably in the Pharos in Dover, England, over 2,000 years old. It is harder today than ever. There has been no utility of late years for which a greater and more varied use has been found than that of concrete.

A Notelet—The City Council of Bridgeton, N. J. (population 14,000) has passed a resolution authorizing the City Recorder to subscribe for 20 yearly subscriptions of the MUNICIPAL JOURNAL AND ENGINEER.

CLEVELAND STREETS CLEAN

Statement of Work Done and Results Obtained—Expenditures and Average Cost—Discipline of Department—Difficulties and How Overcome

By GUS H. HANNA, Superintendent,
Street Cleaning Department

I PRESUME that Cleveland has experienced many of the same difficulties that other large cities have in the cleaning of streets. In my opinion there is no more important function of city government than keeping its streets in a clean and sanitary condition. One of the chief difficulties in the way of doing this is a lack of funds with which to properly carry on the work. We believe, however, that in our city we have accomplished wonderful results with the small amount allowed this department.

The total expenditures for the year 1905 were as follows:—

Officers' salaries and office expense.....	\$4,737.96
Rent of barns	555.00
Maintenance of district stations, repair shops and dumps	11,326.03
Cleaning market places and down-town alleys.....	12,913.51
Salaries of "White Wings" or "Blockers".....	51,390.95
Machine cleaning and pick-up gangs.....	82,443.68
Removing snow and ice.....	11,869.53
Additional Machinery, tools, repairs, etc.....	16,359.28
	<u>\$191,595.94</u>

The average cost of cleaning per square of 10,000 square feet was as follows:

For machine sweepers and pick-up gangs.....	\$0.99
For flushers and pick-up gangs.....	0.47
For "White Wings" or "Blockers".....	0.22

The low cost per square for the latter is due to the fact that a "White Wing" can cover at least three times the territory where the streets are flushed than he could if no flushing were done.

Prior to 1903, when the present administration assumed office, all street cleaning in Cleveland was done by contract, the prices paid ranging from \$2.00 to 90 cents per square, the higher price being paid for the early spring cleaning when the mud and filth were several inches thick upon the pavement. Under the contract system the streets were never very clean, the reason for this being that the contractor was paid his price per square whether he thoroughly cleaned the street or merely skimmed over the top.

MUNICIPAL STREET CLEANING

Mayor Tom L. Johnson and the members of the Board of Public Service are all thorough believers in municipal ownership, and immediate steps were taken for the securing of the necessary street cleaning machinery, all of which has been paid for out of funds appropriated for street cleaning purposes. The Street Cleaning Department was then made a separate division from the Department of Streets, and the writer was placed in charge as Superintendent. Stables for the housing of machinery and tools were erected in various sections of the city and

suitable divisions or districts established with a sufficient number of men and machines assigned to each district to clean all main thoroughfares about twice each week and residence streets at least once each week. These we have sub-divided into flushing and pick-up districts.

Flushing District No. 1 is in the commercial section of the city on the east side, where six flushing wagons are employed by night. Flushing District No. 2 has five wagons working day and night. No "White Wings" are employed in this district. This district is sub-divided into three pick-up districts, each with one foreman, seven men and three dump carts. District No. 3 has five wagons working night and day, and three pick-up districts with the same number of men, carts, etc. District No. 5 has three wagons working night and day, with one foreman, nine men and four carts. This district is somewhat hilly and requires one less pick-up gang. District No. 6 has five wagons working night and day with three pick-up gangs. The market cleaning is done by fifteen men and four carts, with one foreman, working partly by day and partly by night.

DISCIPLINE AND PERSONNEL

Now as to the personnel and discipline of the Department, would say that all employees are retained for their ability to perform the work for which they are hired rather than for any political influence they may have. In addition to the general superintendent and assistant and the foremen in the various districts we employ five inspectors. These inspectors and the foremen all have police power. They wear uniforms and, if necessary, make arrests for the violation of any street ordinance. While the Department is not on a civil service basis, we have rules governing the same, and the violation of any one of them is followed by a reprimand or a dismissal from the Department. We also employ a system of daily reports as to the amount of work done, which keeps the head of the Department in close touch with the details of the work.

It seems to be generally conceded that Cleveland streets at present are as clean, if not cleaner, than any other city of its size in this country. This comes to us not only from the inhabitants, but from many visitors, and especially public officials from other cities. I believe that the reason for this is that we have adopted the flushing, or wet, cleaning system. We now have twenty-four flushing wagons, and it is altogether likely that more will be added as occasion requires. We find that the flushing of streets removes not only the dirt but also the fine dust which ordinarily is blown into buildings. The merchants inform us that prior to the adoption of the flushing system they sustained annually a damage of several thousand dollars to their goods. This, however, is of slight importance as compared with the health of the community. There can be no doubt that the dust from paved streets is laden with disease breeding germs and any system which will remove these or at least reduce the same to a minimum is worth a great deal to the inhabitants of any city, and should, therefore, be given as much consideration as is ordinarily given to other sanitary regulations—such as proper sewage system, furnishing of pure water, etc.

MUNICIPAL MOVEMENT

Collated and Chronicled

Metropolitan Items.—There is fear expressed that the Municipal Ferry may be tied up, as it is anticipated that the Acting Mayor will veto the salary bill. The captains and engineers of the five running boats want \$2,000 a year each.

"From a financial point of view, we would like to discontinue the service between the hours of 1 and 5 A.M., is the statement of Mr. Oren Root, Vice-President and General Manager of the Metropolitan Street Railway.

The New York Telephone Company offers the city \$200,000 a year for a monopoly. The Atlantic Telephone Company offers \$1,000,000 a year for the same privilege.

Mr. H. H. Rogers has had an order made against him to pay back to the receiver of the defunct Bay State Gas Company of Delaware a sum of at least \$2,250,000.

The chief engineer, Mr. William H. Bradley, of the Consolidated Gas Company, states "that improvement in the manufacture of gas may help customers to a reduction in price."

Governor Higgins, in respect to the charges filed with him against Borough President Bird S. Coler, has dismissed the same, on the grounds that the testimony on the charge taken by Attorney General Mayer does not sustain the charge.

The United States Fidelity and Guaranty Company announces that it has abandoned its burglary insurance business in this city because of the increase in losses. "There is too much crime here," says the company. "Nonsense," replies Commissioner Bingham.

A writer in one of the morning papers claims that the city's streets ought to be fenced off six feet high with barbed wire, excepting at the corners, and at every corner, all four of them, should be placed a fool-killer with a long rod, to wake up those who want to cross in their sleep.

The office of Electrical Engineer in the Fire Department, with a salary of \$2,000, recently held by Mr. Henry E. Gray, has been abolished on the grounds that the office is no longer of any value to the city.

The residents of upper Broadway are in anger in respect to the condition of their thoroughfare, complaining that neither sprinklers nor hose are used on it.

Acting Mayor McGowan has declined to comply with the Citizens' Association's demand for the immediate removal of Commissioner Woodbury, preferring to let the matter remain as it is until Mayor McClellan returns.

Immigrants arriving on the Saturdays of the months of August, September and October, must stay aboard the boats until the Mondays following.

The proposed Bridge loop, to relieve the congested traffic, to be erected on Delancey street, is meeting with much opposition. The delegates of several civic and other bodies demand tunnel connections with Williamsburg.

Mr. T. A. Adams, President of the United Cold Storage and Manhattan Refrigerating Company, was requested to leave the office of Acting Mayor McGowan. Mr. Adams had a complaint against Chief Nichols, of the Bureau of Franchises, whom he accused of having threatened to put him out of business. Mr. Nichols replied that Mr. Adams was not telling the truth.

ALABAMA, Mobile.—The city is considering two schemes for extension of water supply: First: Purchase the Bienville Company's system for \$350,000 and have a complete plant in immediate operation with big mains in the business district, where the city mains are small; 280 additional high-pressure fire plugs, duplicate mains on unpaved streets which can be taken up and relaid elsewhere to give needed extensions; and pay for all this out of the earnings of the addition without the trouble of floating bonds through the usual channels.

Second: Spend at least \$296,000 to obtain similar pumping equipment and pipe line to the city—no mains down town, no extra fire plugs, no pipe to be used in extensions—pay a high rate of interest for bonds which will make the total sum larger than the principal and interest of the first proposition and lose time and money in the disposal of the bonds.

ARIZONA, Phoenix.—An ordinance has been adopted by the Council raising the license for gambling from \$20 a month to \$50 a month. The ordinance adopted amends the former law in three ways. The license is made payable quarterly in the place of monthly, the policy games and the policy offices are included in the raised license and all games of chance are included. This will make the total of each license for each gambling table in Phoenix \$80 a month, \$30 being the county tax.

ARKANSAS, Fort Smith.—Alderman George Moss is of the opinion that the city should begin to look into the question of a future water supply. He does not think that the Poteau can be much longer depended upon to supply the growing city with water, and believes that some tall engineering will have to be done to meet future needs. He says that the city of Baltimore is supplied from a river many miles away; and the city of Washington is supplied with water brought a distance of eight miles. He predicts that in the future this city will get its water from the Boston mountains or from some other like point, or will be supplied by artesian wells.

CALIFORNIA, Berkeley.—In a report to the Board of Trustees, Fire Chief Kenney, after stating that the department was in good working order and asking that the men receive more compensation for their work, added:

"I will now state again that we cannot cope with the class of buildings that are now building without the aid of a modern truck equipped with extension ladder."

Palo Alto.—The engineer who came from San Francisco to inspect the broken pump at the waterworks reports that the machine is beyond repair. It was shipped to San Francisco to-day and will be replaced by a new one as soon as possible.

Pasadena.—S. O. McGrew, superintendent of the city sewer farm, presented his report for the month of June. He gave the month's income at \$738.27 and the expenses as \$552.24. The hay at the farm is all in stack and a baler will begin about July 10.

San Francisco.—After closing his office on July 10, Mayor Schmitz sent letters to Police Commissioners O'Grady, Reagan and Drinkhouse, demanding their resignations.

COLORADO, Pueblo.—Mayor West has vetoed the ordinance for paving Central and South Main streets, saying: "I have decided to sign the ordinance as passed by your body, but shall refuse to advertise for bids or award a contract for doing the work until such

time as your body and the traction company shall settle the differences existing between you. If a contract should be awarded under the present conditions no portion of the expense could be collected from the traction company."

CONNECTICUT, East Hartford.—The East Hartford fire district may have extensive forestry work at the watershed in Glastonbury. The plan provides for the formation, care and protection of commercial forest plantations, aggregating approximately eighty acres on a tract of 100 acres. The lands upon which planting is advised constitute a portion of the watershed from which the village of East Hartford receives its water supply.

DELAWARE, Wilmington.—The First Ward Park Association has reached the place in its movement for the planning of a playground where it must appear before the Legislature and secure an act authorizing the Board of Park Commissioners to purchase certain properties. The site now selected by the association comprises properties on a high point and would make an ideal public park and playground.

DISTRICT OF COLUMBIA, Washington.—The city fared well at the hands of the last session of Congress, much more being done for the several departments of the municipal government than in years. The members of the Fire Department were given an increase in pay all along the line, and the laddies of the National Capital under Chief Engineer William T. Belt now receive compensation which compares with other large cities in the country. Major Richard Sylvester, Superintendent of Police, also secured a reorganization of his department. This was brought about by raising the rank of lieutenants, who heretofore have been in charge of stations, to that of captains, and the promotion of an equal number of veteran sergeants to the rank of lieutenant and placing them in charge of the stations at night. The appointment of the Board of Education, consisting of nine members, is now made by the justices of the Supreme Court of the district, instead of by the President of the United States.

FLORIDA, Tampa.—The new city administration is attacking its duties with enthusiasm. The citizens have caught the infection. Chief Hobbs of the sanitary department testifies with pride to the energy with which the citizens have responded to his orders to clean up their premises. The City Council has passed a drastic health ordinance—perhaps overdoing it. The new Fire Chief announces his intention of introducing many improvements in the service.

GEORGIA, Athens.—The Athens Gas Company is asking of the Mayor and Council reduction of the tax assessment against its property. The assessment has recently been raised from \$7,500 to \$20,000.

Atlanta.—An effort to have North Broad street, from Marietta to Peachtree street, paved with asphalt, vitrified brick or some other smooth pavement, was recently begun by the filing of a petition with City Clerk Campbell to this end. The paper was signed by the owners of a majority of the frontage affected.

Augusta.—The officers of the Board of Health feel very proud of the record that is being made by the city in the fever problem. It has been attributed to the general cleaning up of the city which was held last year, and again this year.

Canton.—The park, which has been so generously donated by the Brown heirs to the town of Canton, was dedicated, July 13. It consists of over four acres, situated in the heart of the town.

IDAHO, Moscow.—The University of Idaho has had in its employ about sixty-five men and boys cleaning and piling brick at the ruins of the Administration Building. Recently a strike was declared by "Red" Dale and fifty of the force walked out. "Red" is a lad of about seventeen. Higher wages are demanded. The scale was \$1.25 a thousand for cleaning and piling. At this price from \$1.25 to \$2.50 per day was earned.

ILLINOIS, Chicago.—The city's system of garbage reduction, which is to be put in operation November 1, will require householders to exercise more care than they have done in the past in disposing of waste material. Under the contract which the municipal authorities have entered into with a private firm, the former are to deliver to the latter's reduction plant, at Thirty-ninth street and the river, garbage from streets and alleys all over the city, but it must be 95 per cent. pure; that is, ashes, old newspapers, and similar rubbish must be kept out of it. Ashes and other substances which cannot be burned will have to be placed in separate receptacles, so that they may be used as filling for unpaved streets and alleys and for like purposes.

Elgin.—The entrance of the new Elgin-Belvidere line into the city, via Highland Avenue, will promote the Park Commissioners plan for a boulevard; they have long had in mind a speedway or boulevard extending from Wing Street around Wing Park and out to the Dundee Road, a distance of more than two miles.

Joliet.—The water in the drainage canal is about two feet lower in this city than it has been at its regular flow. As a result of this, the slowly moving stream gives forth an odor that is anything but pleasing.

Peoria.—A commission recently appointed by Mayor Lapp to investigate the sewer outlets found, between First and Third Streets, that the brick work of the bottom of the sewer was in a dilapidated condition. There were places where the entire inner ring had washed out, and in many places sand had accumulated in such quantities as to fill the sewer bed from two and a half to three feet in depth.

Springfield.—The Springfield Park Board, at a recent meeting, interestingly took action on a number of matters. The ordinance turning over to the Park Board that portion of South Grand Avenue extending from the curb line to the property line on each side of the boulevard and which was passed by the City Council last week was accepted.

INDIANA, Indianapolis.—Members of the Board of Public Works believe in well water, and they are putting the public wells about the city in shape as rapidly as possible. Under a former administration a number of the pumps in the downtown districts were condemned and sealed by the Health Department because the water was not regarded as potable.

Michigan City.—The local agents think the threatened increase in insurance rates an injustice, inasmuch as the insurance companies had never taken any cognizance of the new paid Fire Department installed in this city, of the splendid streets insuring a quicker run to a blaze, or the adequate water supply and other recent improvements.

Muncie.—The plans to sprinkle the north side improved streets received another body blow recently when J. W. Morgan, who was awarded the contract for the work, informed the Board of Works that he would not be able to carry out the contract on account of his inability to secure suitable equipment within the time specified by the board.

Richmond.—The members of the Board of Public Works, Mayor-elect Schillinger, a number of private citizens and representatives of the local newspapers will go to Cincinnati, Ohio, upon the invitation of the Good Roads Association of that city for the purpose of inspecting street sand roads that have been treated with oil to prevent dust and preserve the surface.

Vincennes.—A petition was received by the Board of Public Service at a recent meeting from a number of prominent ladies and gentlemen, asking that a police matron be appointed, whose duty it will be to look after the women prisoners in the jail, as well as to search the women prisoners.

INDIAN TERRITORY, Wewoka.—Application has been made before Judge Lawrence at Muskogee for the incorporation of the town of Wewoka. The petition was signed by practically all the business men of the town. Wewoka is the capital of the Seminole nation. It now has a population of 1,000.

IOWA, Eldridge.—Twenty thousand feet of new sidewalks are being completed in the town of Eldridge, the contracts for which were let early in the year. The sidewalks are permanent granitoid affairs and give the business streets of the town a neat appearance.

Muscatine.—By deflecting the waters of the Cedar River into a canal ten miles long, connecting with the Mississippi at this point, 25,000 horsepower can be generated, according to the estimates and plans of several expert engineers who have been investigating the Moscow canal project. George Meyer, of Chicago, a capitalist, who is interested in the Citizens' Light and Railway Company of this city, is on his way East, where he expects to interest capital to finance the scheme.

KANSAS, Topeka.—The Waterworks Committee has passed a resolution calling upon the Board of Waterworks' trustees to install meters as expeditiously as possible and to dispose of meters to customers where necessary upon an installment basis, permitting them to pay monthly for the meters.

Wichita.—The plan for the sewer system, which has been prepared by City Engineer Brown, to drain that portion of the city lying between the Arkansas River and Chisholm Creek, from Seventeenth Street south, involves an expenditure of \$300,000. It is very complete and follows a general plan to convey the storm water into the Chisholm Creek canal instead of into the Arkansas River, as proposed by Wynkoop Kiersted, a Kansas City engineer.

KENTUCKY, Hickman.—Water from the new artesian well has been pumped into the water mains. The water is now fine and clear, very different from the muddy water of the Mississippi, heretofore used. The electric-light and waterworks will be run in connection with the new coal and ice company, and will all be under one management.

Louisville.—The special committee of the Louisville Board of Waterworks has made public the report of the investigation into the affairs of the Louisville Water Company, as conducted by the former management. No comment on the former managers is made and statements of assets and liabilities, prepared by two different firms of expert accountants, are included. It is set forth that the filter will be completed October 1, 1906, and that an additional expenditure of \$300,000 is necessary.

Paducah.—Southwestern Kentucky Immigration Bureau is the name of an organization having its inception in the Paducah Commercial Club, which is now

in process of organization. The plan is to secure the co-operation of influential citizens in the immigration scheme already started by the Commercial Club and the McCracken County Farmers' Institute.

Somerset.—Actual construction on Somerset's electric street railway line has been started. About 200 laborers gathered at the office of the Somerset Water, Light and Traction Company to secure tools for work. The laying of ties and the setting of poles are in progress. The rails are expected to arrive shortly.

LOUISIANA, Monroe.—A new epoch in the history of Monroe dates from July 11, 1906, as upon that date a portion of the Municipal Street Railway was opened and cars operated from the crossing on Second street of the Vicksburg, Shreveport & Pacific Railroad to Forsythe Park, a distance of two miles. It is anticipated that the balance of the line will be open and in operation within a week or ten days.

MAINE, Bangor.—An ordinance for the protection of streets contains the following paragraph: Every person, company or corporation shall be liable on his or its bond for the proper refilling of trenches and reconstruction of pavements over trenches, and any defect resulting in the judgment of the Street Commissioner from the fault of such person, company or corporation opening the street, discovered within one year after the work has been completed, must be made good within ten days after the notice thereof. Otherwise the work shall be done by the Street Commissioner at the expense of such person, company or corporation.

MARYLAND, Hagerstown.—It is reported that the Washington County Water Company has purchased from Rev. A. M. Evers, of Hagerstown, a tract of about twenty-three acres of land lying along the Cearfoss Pike, a short distance west of Hagerstown. It is understood that upon this land the water company will construct a new reservoir with a capacity of between 12,000,000,000 and 15,000,000,000 gallons.

MASSACHUSETTS, Boston.—Quite a large amount of unsavory meat is taken off the market every day by order of the Boston Board of Health, through the work of inspectors, who examine the products in the market stalls. The amount condemned last week was 110 pounds of poultry, 677 pounds of veal, 60 pounds of beef and 350 pounds of fish, all of which was found to be tainted.

Marlboro.—Marlboro's new City Hall, erected at a cost of \$95,000, was dedicated on July 16 with a simple ceremony, the exercises beginning with a prayer by the Rev. George S. Pine, pastor of Holy Trinity Church. The Chairman of the Building Commission, the Hon. F. R. S. Mildon, made the presentation speech, during which he pointed out the growth of the city during the past sixteen years.

Springfield.—Millionaire Everett H. Barney, who gave the Barney section of Forest Park to the city some years ago, has now come forward with an offer of \$50,000 toward a new City Hall if he is allowed to select the site and present general plans for the building.

MICHIGAN, Detroit.—In connection with its campaign for municipal home rule and against the granting of new street railway franchises until after the State constitution has been revised, the Detroit Municipal League is making an investigation into the franchise conditions as they now exist so far as the Detroit United Railway is concerned. At a meeting of the Executive Committee recently, the secretary pre-

sented a report prepared by Mr. Callender, counsel for the league, in which he stated that there are within the city limits 164.2 miles of street railway track, of which the franchise of upwards of sixty miles will expire in 1909.

Kalamazoo.—The Ladies' Civic Improvement League of Kalamazoo, under the able leadership of the Rev. Caroline Bartlett Crane, has succeeded in keeping the main streets exceptionally clean. Members of the Non-Partisan Municipal Election League who recently visited Kalamazoo to study the situation reported Main street and many of its cross streets in fine order.

Saginaw.—Refusing to recognize the action of the city authorities in fixing the price of gas at 90 cents per 1,000 feet, the Saginaw City Gas Company has issued a statement to the effect that, pending the settlement of the suit just begun against the city, \$1.20 will be charged for both fuel and illuminating gas with a discount of twenty cents, making the net price \$1.

MINNESOTA, Minneapolis.—C. L. Hill, of the forestry service of the Department of Agriculture, is in the city to watch the work of preparing for the Government's test of wood pavements. The Government is making two tests of various kinds of wood which are believed to be suitable for street paving. One test is being made in New York for Eastern and Southern woods and the other in Minneapolis for Western and Northern woods.

Winona.—After working for over ten years for public baths, the city of Winona is to be supplied within the present season. They are to be located upon an island directly across from Riverside Park, and will include, in addition to the bath-houses and appointments, the parking of a large portion of the island.

MISSISSIPPI, Belzoni.—The town of Belzoni is working for the construction of a bridge, the location of which has been designated by the United States Engineers Department, and the authorities of Washington County are asked to aid in meeting the expense, the town authorities being willing to contribute 40 per cent. of the cost. Holmes County, also, is ready to help in defraying the expense to the extent of \$3,500. The question presents itself whether the town of Belzoni and the two counties can enter into a joint agreement, with fixed liability as to amount.

MISSOURI, Carthage.—The Street Committee reports that it has been investigating the cost of crushed limestone at the quarries and finds that it can be delivered on track in cars at the east end of Central avenue for sixty-eight cents a cubic yard if as much as four cars per month were used, and at sixty-seven and one-half cents per cubic yard if six cars per month were used.

Kansas City.—Plans to incorporate a Greater Kansas City, which will include Independence and Dodson, are being formed, and a reorganization of the city government under a new charter is contemplated. A system of public improvements suited to a city of 135 square miles area is contemplated. The upper house of the City Council, after a lengthy session, passed a gas franchise ordinance, the chief features of which are that natural gas is to be supplied at not exceeding twenty-five cents per thousand feet, and, if the supply of natural gas should be exhausted, manufactured gas is to be supplied for not more than seventy-five cents per thousand feet.

St. Louis.—A. Meyer, Jr., City Forester, has prepared a report to Street Commissioner F. W. Valliant, show-

ing that only 53.9 per cent. of the trees examined during the month of June are in first-class condition. The district investigated is bounded by Chippewa Street, Cass Avenue, Jefferson Avenue and King's Highway. In all 13,153 trees have been inspected and will be transferred to the forestry map, now in the course of preparation.

MONTANA, Butte.—At a recent Council meeting ordinances were passed for the creation of permanent sidewalk districts. It is the intention to lay permanent sidewalks throughout the residence portion of the city. Contracts have already been let for the construction of considerable paving.

NEBRASKA, Omaha.—The city owns a plant for street paving and has managed it for several years. It was put in charge of the City Engineer, who, as is the case with most officials in most cities, had his hands full and could not give the paving business as much time and attention as it deserved. Chemists are engaged to test and mix the asphalt and superintendents to supervise the work.

NEVADA, Bull Frog.—For a city a year old, Bull Frog holds the record in owning a waterworks. An investment of \$50,000 has furnished the city with a supply piped to hotels and residences where the most modern equipment may be found. An electric-light plant lights the city of 15,000 inhabitants, where only desert vegetation formerly struggled for existence.

NEW HAMPSHIRE, Nashua.—At a recent meeting of the Board of Public Works the matter of keeping combustible and perishable waste away from the ashes and similar dirt which is available for filling dumps was discussed. It appeared that the laws require that the Mayor and Aldermen shall determine the rules which the Board of Public Works shall follow in collecting waste set out in the street for householders.

NEW JERSEY, Bayonne.—The new asphalt pavement on Avenue C does a great deal of good. Heretofore that part of the avenue has been an unimproved roadway, and to play in it was almost impossible because of the dust. The people in the lower Centreville section cannot afford to go away for the summer, and usually they have large families. Now, instead of the children crowding the sidewalks in front of their homes, they are playing up and down the streets. The new pavement is to be continued to the Kills, making about nineteen blocks of asphalt.

Elizabeth.—Louis J. Richards, Inspector of Health, has adopted a novel scheme to rid fresh-water cisterns in private yards of mosquitoes by supplying each yard where there is a fresh-water cistern with fish. Large quantities of fish have been caught and are now stored in large tanks, which are sent to the yards designated by the health officer in his investigations and are liberated in these tanks. He hopes to rid the breeding places of mosquito eggs before they can be hatched.

Newark.—In order to prevent the trees along the streets and those in the city parks from being cleared of their foliage and greatly damaged by the ravages of insects, worms and caterpillars, the Shade Tree Commission, in addition to sending a force of men to work, has enlisted boys and girls in the campaign. The commission offers to pay ten cents a quart for egg masses, cocoons and caterpillars, gathered from the city trees and brought to the bandstand in Military Park. The commission also desires to enlist the services of householders, and all persons in front of whose homes are trees.

NEW MEXICO, Raton.—The arbitrary action of the Raton Water Works Company in raising the water schedules of the city to double the amount previously charged, which is the maximum allowed by the franchise, has resulted in a fight between the company and the city government and citizens. At a meeting of the City Council held last week, the company was fined \$1,000 for furnishing the city with impure and unwholesome water, and the Council threatened to revoke the company's franchise.

NEW YORK, Buffalo.—The Charter Revision Commission finished its work on the general outline plan for a charter as submitted by the city committee several days ago. The commission will not meet again until October, when the details of the general plan will have been worked out and the charter be put in shape for presentation to the Legislature during the coming winter.

Lockport.—The State Water Supply Commission has granted the application of the city of Lockport to take a water supply from Niagara River. The written decision covering fifteen pages was given City Attorney Smith. It places no restrictive provision on the present plans for a supply, but recommends in the last paragraph that the city make plans to install a filtration plant at some future date.

NORTH CAROLINA, Asheville.—At the State Firemen's tournament Newbern lowered the world's record for quick water by twenty-two and one-half seconds. Newbern showed water in two minutes and six and one-half seconds. Goldsboro showed water in three minutes and twenty-two and one-half seconds. Goldsboro won for long distance, throwing the stream 237 feet and nine inches, while Newbern put the stream only 219 feet and nine and one-half inches.

NORTH DAKOTA, Fargo.—Judge Amidon, in speaking by request at a Council meeting in favor of a proposed ordinance, providing for the regulation of parties, said he desired to direct the attention of the Council to the fact that the city park was donated to the city about thirty years ago under certain conditions and he for one intended to do what he could to see that those conditions were carried out. In the matter of structures in the park he stated that he had counted some fourteen in the east end, ranging from hencoops to dwelling houses, found sewer pipes, lumber piles and a woodpile some 200 feet square, and other truck. He stated that under the provisions of the deed of the property to the city every structure could be removed and he would insist upon every structure being removed except the waterworks.

Dayton.—The interurban station which is shortly to be built by the Schoepf Syndicate, will cover an entire city block. The franchise granted to this company, which will give the company opportunity to seek city rights for urban service, assures immediate work in the construction of a terminal station.

Cleveland.—The Cleveland Electric Railway Company has announced the proposition it will submit to the City Council for a renewal and extension of present franchises. The company agrees to sell seven tickets for a quarter, give universal transfers, construct such lines as the city may direct and build at once high-speed lines where desired either by elevated or subway.

Toledo.—An ordinance has passed directing Solicitor Northrup to condemn property near Memorial Hall for a new municipal building.

OKLAHOMA, Guthrie.—This city, until 1913, will be the capital of Oklahoma. Guthrie is as complete a little city as one would wish to find, a clean, fresh, new miniature of—say Indianapolis. Its downtown is built up solidly of modern brick buildings. Its residence streets are tree shaded. It has its union depot, its summer park, its street railway, waterworks, schools galore, hotels, electric-light plant, factories, business club, banks, broker's office, hackmen, autos, theater, almost everything one is used to in cities one hundred years old, even high real estate. Everybody—like all over Oklahoma—seems to be alert and busy as if he or she had a place there.

OREGON, Astoria.—With the completion of the jetty which is now being constructed on the Oregon side of the Columbia River, Astoria, Oregon, will be the only city in the world to have a fresh-water harbor. There is every indication that the dream of John Jacob Astor will be realized and the city which he founded over one hundred years ago will become one of the greatest cities of the Western United States. At the present time millions of dollars are being spent in the construction of a jetty extending eight miles out into the ocean from the Oregon side of the river. The jetty has been seven-eighths completed and a sand bar extending across the channel for 3,800 feet has been reduced to 1,000 feet.

PENNSYLVANIA, Philadelphia.—The Fairmount Park Commission has adopted rules to further safeguard the interests of people visiting the park, as follows: No carriage, automobile or other vehicle shall be permitted to stand upon the drives or any part thereof, if by so doing it congests or obstructs the road. No carriage shall be permitted to remain on the drive if the driver or attendant is beyond reach of the same. No horse or other animal, or second horse and second horse and vehicle, shall be led on the roadway. The portion of the park set apart for ball, croquet or other games is to be under the following restrictions: No person shall join in any game without the consent of the persons of whom the game is composed, nor shall in any manner disturb or interfere with the same. No person shall erect tennis nets or occupy any ground set apart for tennis, baseball or croquet or other games for the purpose of holding the grounds.

RHODE ISLAND, Providence.—A proposition has been received from Colonel Wendelschaefer, manager of the Providence Opera House, that the city erect a summer theater, which he will lease on terms advantageous to the municipality and will give there not only light operatic entertainments and extravaganza, but grand opera with an orchestra of twenty to twenty-four pieces and a company of eighty people. The estimated cost is \$20,000.

SOUTH CAROLINA, Spartanburg.—The organization of the Atlantic Bitulithic Company has been completed in this city with the election of officers and directors. The company is organized with a capital stock of \$150,000. At the meeting of stockholders the following directors were elected: Geo. O. Tenney, of Spartanburg; W. H. Dorin, of Norfolk, Va.; J. L. Pool, of Spartanburg; J. T. Maxwell, of Saugerties, N. Y., and Ralph E. Warren, of Boston, Mass. Officers were elected as follows: Geo. O. Tenney, president and treasurer; W. H. Dorin, vice-president; J. L. Pool, auditor. The main office of the company will be in this city, with a branch office in Norfolk, Va., while other offices may be opened from time to time in various localities.

SOUTH DAKOTA, Groffton.—C. B. Parker, formerly of Aten, eighteen miles north of here, has decided to move to this city, and has three great traction engines and twelve horses moving his entire store, sixty feet long, across the prairie to the new location.

TENNESSEE, Memphis.—Acting Mayor John T. Walsh's first orders to the police were in the nature of a command to rid the city of vagrants, both black and white. It is a good order, leading to better morals and tending to give greater protection to personal property during these days and nights when the weather necessitates the more or less open and unguarded houses. Labor never was scarcer in Memphis and the South than it is to-day, and ordinary laborers can almost command their own price for a day's work. The greatest demands for laborers in Memphis come from railroad, levee and building contractors who are working shorthanded in all parts of the country on account of the short supply of laborers, which has not, at any time this year, equaled the demand. A prominent labor agent of the city was discussing the labor question yesterday and declared that sufficient laborers, white or black, cannot be found at present to fill the demands which come to Memphis, as a center, from all parts of the United States.

TEXAS, Brownwood.—Work has commenced on the new dam across the bayou for the city waterworks. When completed it will supply the city with an unlimited supply of water. The old dam, three miles above town, will be used as a storage reservoir, and as occasions may demand will be used to replenish the new reservoir, as the water may run low.

UTAH, Salt Lake City.—Work on the viaduct over the Oregon Short Line yards on North Temple Street has commenced. The viaduct will be twenty-two feet above the yards. Sidewalks on both sides of the platform, with a wagon road in the center, will provide enough room to prevent congestion. The viaduct itself will be about 1,000 feet long. On the east end another descending roadway will reach almost to Second West Street.

VERMONT, Newbury.—A special meeting was held recently at the town hall, North Haverhill, Mass., to see if the town would appropriate the sum of \$1,500 to equal a sum of the same amount appropriated by the town of Newbury for the purpose of purchasing the toll bridge across the Connecticut River at North Haverhill between the towns of Haverhill and Newbury, Vt., to be maintained by the two towns as a free bridge. The meeting voted unanimously in favor of the appropriation without discussion.

VIRGINIA, Manchester.—The Board of Aldermen in a recent session amended the wording of the Toney resolution asking for the appointment of a joint Council committee to act with a like committee of citizens to secure the best possible site for the new postoffice building. The amendment was of such a nature as to make it a request to the government officials to act in accordance with the desire of the citizens in the location of the building. Mayor Maurice is in favor of disposing of a portion of the city lots near Tenth and Hull Streets and allowing the postoffice building to be located in this section.

Norfolk.—The water situation in Berkeley Ward is again becoming the paramount question among its residents. The people are forced to buy drinking water, because that furnished is unfit to drink.

WASHINGTON, Tacoma.—There is bitter feeling between the members of the North End Improvement

Club and the Tacoma Water Supply Company. A special meeting of the club was recently held in the precinct house and a special committee, consisting of T. H. Bellingham, E. R. Rogers and C. M. Holden, was appointed to confer with L. H. Hole, owner of the water plant.

WEST VIRGINIA, Wheeling.—A threatened suspension of the city gas works has been averted by conceding practically all the wage demands of the striking employees. It is estimated that the new scale of wages will impose an additional burden of \$5,000 annually, which must be met by the revenues or some other source, presumably by special appropriation out of the city treasury or by an extra levy. The city is confronted with a rapidly decaying plant. The proposition to relieve the city gas board revenues of the maintenance of the street electric lighting plant has never been pushed to conclusion.

WYOMING, Lander.—State Engineer Clarence T. Johnson reports that two and a half miles from the Shoshone reservation border a new city has sprung up since the town was plotted some months since. Its population is of that active Western sort that shows its aggressive, pushing policy by getting ready for the future. It has banks, hotels, stores and all those things that older cities possess for the convenience of its citizens and the stranger within its gates.

CANADA, Galt.—The Town Council has adjusted its differences with the Dominion Natural Gas Company. Consumers have had a grievance in the meter charge of 15 cents a month, which was not provided for in the agreement between the company and the town. In consideration of a fixed assessment of \$35,000 for five years the company has agreed to reduce the meter rental to 10 cents.

Hamilton.—City Engineer Barrow has made a reply as follows to Alderman Macleod's request for a full report on the subject of filter basins: "I would say that I did not take much notice of the criticisms of part of our waterworks, which have lately appeared in the newspapers, because, in my opinion, there was no real cause for complaint. The water given to the citizens is good, as shown by analysis, and this is confirmed by the freedom from typhoid fever which now prevails in our city.

HONOLULU.—Construction work on the Nuuanu dam has ceased entirely, pending the coming of Engineer Kellogg, who is to arrive on the Alameda. It is said that Kellogg will dig various pits in the dam to test its stability, and one is now being sunk as a kind of preliminary for his work. The Governor has not yet appointed other engineers to co-operate with Kellogg.

PANAMA.—The improvements on the Panama strip are being pushed forward rapidly, and miles of fire brick pavement are beginning to show the results anticipated. The foundation for the pavement is of concrete, and the work is being conducted with every detail looked after, as the engineers are held rigidly to all plans and specifications. Besides, the system of drainage adopted for that section governed by the United States is modeled according to the most modern ideas. The work of paving the streets is about 40 per cent. completed. The sewer system is not quite so far advanced. The whole work of rendering the city sanitary will be completed by the end of the coming dry season.

A Clippet

Knicker—The city wastes millions of water.
The Kentucky Colonel—How do they drink it?

Personals.—BOUTON, GEORGE T., Chief Clerk, Consultant and Executive Head of the Water Department of Jersey City, N. J., has resigned as Executive Head, on account of the failure of the Street and Water Board to ratify recommendations for economy and the betterment of the service.

BRACKEN, DR. H. M., has been reelected Secretary of the State Board of Health of Minnesota, and Dr. F. F. Westbrook has been reappointed Director of Laboratories.

BROWN, LOUIS J., has been elected City Solicitor of Lewiston, Me., vice A. T. L'Henreux, resigned.

BURR, CHARLES E., of Delaware Engine Company, has been reelected Chief Engineer of the Bordentown, N. J., Fire Department; Arthur A. Kafer, of the Humane Engine Company, First Assistant, and Walter A. Reynolds, of the Citizens' Hook and Ladder Company, Second Assistant.

COOLEY, MORTIMER E., Professor of Mechanical Engineering at the University of Michigan, who recently assisted in fixing the valuation of railroad properties in Michigan, has been selected by Mayor Dunne to succeed A. D. Dupont, of Detroit, Mich., in preparing an estimate of the value of the traction properties of Chicago for the city.

CREAMER, D. S., State Fire Marshal of Ohio, has removed the entire board of fifteen Republican assistants appointed by his predecessor and appointed Democrats.

CUTSHAW, COL. W. E., has been elected and qualified for the thirty-third term as City Engineer of Richmond, Va., Gen. U. C. Newberry first placed him in nomination, June 23, 1873, when he was endorsed by Gen. Robert E. Lee.

DUGGAN, JOHN T., Mayor of Worcester, Mass., through negotiations with President A. George Bullock of the State Mutual Life Assurance Company, has obtained a temporary loan of \$50,000 to pay the teachers, at 4.25 per cent. This is .25 per cent. less than could be secured in the open market.

ELLIOTT, CLIFFORD, has been elected President of the Public Lighting Commission of Detroit, Mich., Marvin M. Stanton, Vice-President, Frank T. Bowles, Secretary, and William M. Daly, Superintendent.

FRICKEY, ROY E., a graduate of the College of Mechanical and Electrical Engineering at the University of California, class of 1906, has perfected an invention which is expected to accomplish much in the cleaning and reconstruction of San Francisco, and a corporation has been formed to back the proposition.

GERRISH, W. B., City Engineer of Oberlin, Ohio., has made an inspection of the sewage disposal plants of Glenville and East Cleveland, with a view of installing a suitable system in Oberlin.

GUTHRIE, GEORGE W., Mayor of Pittsburg, Pa., is spending his vacation at Bar Harbor, Me.

KELLY, WILLIAM, Captain Corps of Engineers, U. S. A., has been assigned as assistant to Col. John Biddle, Engineer Commissioner of the District of Columbia, vice Major Chester Harding, recently promoted, who is to be detached and assigned to duty at the Engineer Post and School, Washington barracks, D. C.

SCHALLER, FRANK, has been unanimously re-elected Chief of the Fire Department of Port Huron, Mich.

SELIGMAN, E. R. G., Professor at Columbia College, New York City, has been appointed by Governor Higgins a member of the special Legislative Tax Commission, which is to investigate and report on the subject, vice Charles H. Hull, of Ithaca, who failed to qualify.

THOMPSON, WILLIAM, Mayor of Kalamazoo, Mich., who is a very rich man, gave his two sons a college and a military academy education, and now has started them in life as pavers on the city streets.

WALKER, FRANK A., has been re-elected Secretary of the Board of Park Commissioners of Louisville, Ky.; Ernest Kettig, Superintendent of Shawnee and all interior parks; Eugene Terry, Superintendent of Iroquois and Southern Parkway; Henry J. Stoeppler, Superintendent of Cherokee Park, and Cecil Frazer, Chief Engineer.

WHITESIDE, W. H., President of the Allis-Chalmers Company, with his wife and daughter, sailed recently on the Cunard steamer *Caronia* for Liverpool, for a recreation trip through England, Germany, Switzerland and France.

WILEY, JOHN A., has been appointed chairman of a citizens' committee of Franklin, Pa., by Mayor William J. Connell, to take action against the Venango Water Company for pumping into its mains for domestic use water from French creek, which was recently found to be contaminated.

WILSON, HORACE, Mayor of Wilmington, Del., at a recent meeting of the Board of Health, attacked the garbage collectors and urged the members to bring any tangible evidence against the owners of piggeries and the contractors before the City Council for action.

NOTES—QUERIES— CORRESPONDENCE

QUESTION.—Have you any information that you can give regarding Boards of Public Works in Eastern cities?

A.—By whom are the Boards appointed?

B.—How long do they serve?

C.—What branches of city work are under the direction of the Board?

D.—What are the salaries of the Board members?

E.—How is the Engineer appointed, how long does he serve, and what is his salary?

Any explanation you can give regarding various Boards will be very much appreciated.

A. W. G.

ANSWER.—We hope to answer the above questions in an early issue.

QUESTION.—What is the cost of lighting by public ownership, viz., the cost per 2,000-c.p. lamp per annum? The cost under private ownership was published in your magazine some months ago.

T. H.

ANSWER.—In a near number we trust to be able to deal with this inquiry.

Editor MUNICIPAL JOURNAL AND ENGINEER,
Flatiron Building, New York City.

Dear Sir:—Can you inform me as to what is being done in the large cities for the comfort of horses during these hot days? Are drinking fountains provided by the cities or by the S. F. P. C. T. A.? In the old street-car days it used to be the custom to provide emergency stations where horses were cooled off with water from hose supplied for this purpose. The street car companies must have found out from experience what was the best method of treatment, and it seems too bad that the same system cannot be adopted to relieve horses owned by individuals.

Yours truly, C. R.

ANSWER.—So far as we know, very little in this line is being done by the municipalities, but we quote from a statement by Mr. Wagstaff, President of the Humane Society in New York, showing what his society is doing: "At the present time the society has about a score of drinking fountains for man and beast in operation in this city, erected by the society with funds donated. In the meanwhile, the society has made arrangements to water the thirsty horses of this city during the present summer. Through the generosity of some of the members of the society we have stationed thirty men at points in the city where most needed, provided with pails and hose, to water and spray horses. During the last week this force supplied water to over 50,000 horses. Commissioner Ellison, of the Department of Water Supply, Gas and Electricity, has very kindly issued permits for the opening of fire hydrants for the purpose. The number of men will shortly be increased to fifty, and the further extension of the service will depend upon the liberality with which the friends of animals respond to our appeal for funds to carry on and extend this humane work."

Some Unusual Fires

LYNVILLE, IND.—Twenty-three buildings burned, July 12. Cause unknown. One hand fire engine available. Water supply cut off several times. Amount of damage, \$100,000.

BERLIN CENTRE, OHIO.—Big barn belonging to ex-Lieutenant-Governor A. W. Jones struck by lightning and burned, July 14. Amount of damage, \$35,000.

CAMBRIDGE, IDAHO.—The Moran Hotel and other buildings burned, July 7. Fire started from explosion of coal oil in a cook stove. No fire apparatus. Amount of damage, \$12,000.

GRASS LAKE, MICH.—Steeple of the Congregational Church struck by lightning for the third time and burned. Damage, slight.

LAFAYETTE, IND.—Residence of Solomon Gobbau burned, July 6. Wife and six children perished. Fire originated from kitchen stove.

NORTH YAKIMA, WASH.—The coal gas plant, just completed and fired up, burned out July 10. Cause unknown. Amount of damage, \$15,000.

PORTLAND, ME.—Transformer building of the Portland Lighting and Power Co. burned, July 19. Cause unknown. Amount of damage, \$2,000.

WOOSTER, OHIO.—Barn owned by William Mowery, with his entire crop of wheat and hay, burned, July 13. Cause, lightning. Amount of damage, \$10,000.

ADVANCE AND WEEKLY CONTRACT NEWS

Relating to Municipal and Public Work—Street Improvements—Paving, Road Making, Cleaning and Sprinkling—Sewerage, Water Supply and Public Lighting—Fire Equipment and Supplies—Buildings, Bridges and Street Railways—Sanitation, Garbage and Waste Disposal—Police, Parks and Miscellaneous—Proposals and Awards

The Municipal Journal and Engineer wishes to obtain, at the earliest possible moment, advance and reliable information respecting all work projected. Any items sent us will be greatly appreciated. On request, copies containing such information will be mailed to you.

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STREET IMPROVEMENTS

Boston, Mass.—The Board of Street Commissioners is considering laying-out and construction of Kerwin street, Dorchester, from Talbot avenue to Bernard street.—J. J. O'Callaghan, Secretary.

Gladstone, Mich.—Contract will probably not be let for paving four blocks with macadam; sentiment is growing for brick.

Grand Rapids, Mich.—Council has been authorized to issue bonds for constructing a new road and foot bridge across Grand river.

Kansas City, Mo.—An executive session of the West Traffic Way Commission will be held shortly and consideration given to data on routes for tunnel and viaduct to West Bottoms.—John Donnelly, E. C. Harper, E. S. Farnsworth and Stephen A. Mitchell, Engineers.

New York, N. Y.—Bids will be received, July 25, for \$1,000,000 corporate stock for street and park openings.

Amelia, O.—Bids will be received, August 11, for the purchase of \$1,825 5 per cent. sidewalk improvement bonds.—B. S. Cundiff, Clerk.

Batavia, O.—Bids will be received, August 21, for \$4,000 4 per cent. sidewalk improvement bonds.—G. H. Kain, Clerk.

Bucyrus, O.—Bids will be received, August 10, for \$13,400 4 per cent. street improvement bonds.—W. H. Jarus.

Cincinnati, O.—Bids will be received, August 13, for the purchase of \$500,000 3.65 per cent. bonds for resurfacing the streets.—W. C. Culkins, City Auditor.

Delaware, O.—Bids will be received, August 6, for the purchase of \$15,000 5 per cent. street improvement bonds.—F. D. King, City Auditor.

East Liverpool, O.—Petitions for paving Third street with asphalt are being considered.

Hamilton, O.—The City Clerk has been directed to order the issuance of \$75,000 bonds for paving.—Engineer Dillon.

Springfield, O.—Bonds, \$15,000, will be sold, August 14, to pay the city's share of street improvements.—Frank Crothers, City Clerk.

Tiffin, O.—Council will sell \$12,500 bonds for paving Greenfield street, plans for which have been prepared; the Street Superintendent has been instructed to repair Water street with crushed stone.

Toledo, O.—Bids will be received, August 1, for \$80,000, 3.65 per cent. 20-year general street improvement bonds.—R. G. Bacon, City Auditor.

PROPOSED WORK

Washington, D. C.—The Commissioners have ordered that cement sidewalks be laid and curb set on the north side of Bryant street, northwest, in front of the pumping station; also that a catch basin be constructed at the northwest corner of Sixth and N streets, northwest, and that the cross gutters at Virginia avenue and Ninth street, southeast, be replaced with macadam.—H. L. West, John Biddle, Commissioners, D. C.

Indianapolis, Ind.—Lexington avenue will be improved with bitulithic pavement.—Board of Public Works.

Bloomington, Ill.—Arrangements are being made to pave certain streets with brick.

Indianapolis, Ind.—Cement walks are to be built on Thirteenth street, from Canal street to the White river.

Des Moines, Ia.—About \$700 will be expended grading East Thirteenth and East Fourteenth streets.—Board of Supervisors.

St. Joseph, Mo.—Olive street will be paved with brick from Fifteenth to Twenty-sixth streets.—Board of Public Works.

South Omaha, Neb.—An appropriation of \$35,000 has been made for improving West 1 street by paving with brick.—Douglas County Commissioners.

Fargo, N. D.—Council has decided to pave Eighth street with cedar block.

Akron, O.—Council is considering paving of North Howard street with brick and laying stone curbing.—R. F. Hamlin, Clerk.

Bucyrus, O.—Bonds, \$5,700, will be issued for extending Lucas street.—F. E. Donnenworth, Clerk.

Cadiz, O.—Steubenville street will be paved with vitrified brick.—William H. Lucas, City Clerk.

Chillicothe, O.—Walnut street will probably be paved with vitrified brick or block and Bedford limestone or sand stone curbing set.

Chillicothe, O.—Estimates have been prepared for sidewalks on a number of streets and for constructing 8-inch sanitary sewer in Mulberry street.—City Engineer Reed.

Coshocton, O.—Bonds, \$26,000, have been issued for improving Sixth street.

Dayton, O.—Council is considering paving of Broadway, Main street and Rubicon street with brick, sheet asphalt or bituminous macadam.—C. P. Floyd, City Clerk.

Delphos, O.—Third street will be paved; Main street and Second street will be paved later.

Dennison, O.—Second street will be paved with brick and curbs and gutters constructed; bonds, \$29,000, will be issued for the purpose.

East Liverpool, O.—Third street will probably be paved; estimates are being prepared.—J. S. Kelly, City Engineer.

Fremont, O.—Bonds, \$8,800, will be issued for paving South street.

Hamilton, O.—Estimates for paving South Second street follow: with bitulithic and sheet asphalt, with combined curb and gutter, \$31,000, and for stone curb and gutter, \$30,773; paving with brick, \$27,000; estimates for Maple street are the same; plans are being prepared for paving Fifth street.—Engineer Dillon.

Marion, O.—The East Center street paving is to be extended from Grand avenue east to Kensington place.—Wm. Fies, Clerk, Board of Public Service.

Martins Ferry, O.—The paving of Fifth street and Short street with fire brick or block is being considered by Council.—E. D. Lash, City Clerk.

Massillon, O.—Preliminary legislation is being considered for paving West Main street.

Ottawa, O.—Council has decided to improve Main, Cross and Defiance streets by Macadamizing.—S. H. Herringhaus, Village Clerk.

Steubenville, O.—Legislation is pending for paving Third street with brick.—W. W. Trainer, Clerk.

Wauseon, O.—Jefferson street will be paved and curbs, retaining walls, cross-walks and gutters built.—Charles J. Hodges, City Clerk.

Wooster, O.—Council has decided to pave North Beaver street.

Xenia, O.—Council is considering paving Green and Second streets with asphalt, brick or macadam.—C. F. Logan, City Clerk.

Youngstown, O.—Bids are invited for paving Front, Canal and Center streets; contracts for paving Michigan, Ford, Burk, Baldwin, Pennsylvania, Ohio and Madison avenues have not been awarded.—F. L. Baldwin, Mayor; P. W. Hubler, City Clerk; F. M. Lillie, City Engineer.

Zanesville, O.—Ordinances for paving Adams street and Muskingum avenue have been passed.

Meadville, Pa.—Council has decided to pave Park avenue its entire length with asphalt block.

Racine, Wis.—Bonds, \$50,000, have been voted for street paving.

CONTRACTS TO BE AWARDED

Champaign, Ill.—Bids were received, July 21, for improving South First street by paving with brick on a concrete foundation.—George C. Farco, Secretary.

Peoria, Ill.—Bids will be received, July 28, for paving certain streets with pressed stone; work must be completed by October 1.

Great Falls, Mont.—Bids were received, July 16, for repaving Central avenue.—W. P. Wren, City Clerk.

Brooklyn, N. Y.—Bids will be opened, July 26, for laying cement sidewalks on north side of concourse, Coney Island, and for regulating, grading and repaving with asphalt on a concrete foundation Pennsylvania avenue between Jamaica and Sutter avenues, and Glenmore avenue between Stone avenue and Doscher street.—Moses Herman, President, Commissioners of Parks.

Brooklyn, N. Y.—Bids will be opened, August 1, for regulating, grading, curbing and laying sidewalks and making other improvements on a number of streets.—Bird S. Coler, Borough President.

New York, N. Y.—Bids will be received, July 26, for paving, regulating, grading, setting curbs and making other improvements in certain streets in Borough of Bronx.—Louis F. Haffen, Borough President.

New York, N. Y.—Bids will be received, July 26, for constructing a walk pavement of Portland cement and doing other work on the unpaved portion of the esplanade adjacent to the seawall along the water-front of the extension of East River Park.—Moses Herman, President, Commissioners of Parks.

Bowling Green, O.—Bids will be opened, August 13, for grading, draining and macadamizing certain highways in Wood county; plans may be secured from E. L. Spafford, County Surveyor.—B. C. Harding, County Auditor.

Cleveland, O.—Bids will be received, July 26, for grading and paving Lake avenue near Clifton boulevard.—A. R. Callow, Secretary, Board of Public Service.

Edwardsville, O.—Bids were opened, July 23, for improving South Buchanan District by paving with brick on a concrete foundation and constructing sewers.—John C. Burns, Secretary.

Greenville, O.—Farra & Company are the lowest bidders on paving Broadway, West Main street, East Main street, North Main street and East Third street; amount of contract, \$60,000; F. M. Kemp & Sons are low on certain streets; the proposals are for brick paving with concrete foundations.

Marion, O.—Bids will be opened, July 25, for constructing sandstone sidewalks on Patton, Edwards, Waterloo and Fies streets.—Wm. Fies, Clerk, Board of Public Service.

Norwalk, O.—Bids were opened, July 24, for paving Benedict avenue, Newton street and East Main street.—P. P. Kellogg, Clerk.

Ottawa, O.—Bids were opened, July 21, for improving East Main street with crushed stone and 3,733 square yards of rolling; also improving Defiance street with crushed stone and 6,072 square yards of rolling.—B. H. Herringhaus, Village Clerk.

Piqua, O.—Bids were opened, July 23, for improving Wayne street by paving with brick, constructing the necessary curbs and gutters, catch basins and drains.—W. B. Mitchell, Clerk.

Pleasant Ridge, O.—Bids will be opened, August 7, for grading, macadamizing the roadway, constructing curbing and gutter, together with culverts, drains and cross-walks in Cyprus and Mooney avenues.—W. C. Davies, Village Clerk.

Portsmouth, O.—Bids will be opened, August 11, for paving West Fifth, Market, John, Grandview, Clay streets and Campbell avenue with vitrified brick.—R. A. Bryan, Engineer.

Ravenna, O.—Bids will be received, August 7, for highway, under new Ohio law; specifications for State roads are on hand.—State Highway Commissioner Huston, Columbus.

Wauseon, O.—Bids will be opened, August 8, for paving Fulton street with brick.—Charles J. Hodges, City Clerk.

CONTRACTS AWARDED

Pueblo, Col.—Warren Brothers Company, Boston, Mass., have been awarded contract for 24,348 square yards of bitulithic pavement.

Shelbyville, Ind.—The Hoosier Construction Company, Indianapolis, has been awarded contract for 41,391 square yards of bitulithic pavement.

New Orleans, La.—The contract for 1,500 tons of asphalt, for municipal asphalt paving, was awarded the California Asphaltum Sales Agency at \$18.50 per ton for Maltha asphalt. —Finance Committee.

Ann Arbor, Mich.—The Central Bitulithic Company, Detroit, has been awarded contract for 10,000 square yards of bitulithic pavement.

Alliance, O.—John Wilson has contract for improving Ely street with Minerva paving block, and John C. Devine contract for paving East Patterson street with Big Four block.

Chillicothe, O.—Jardine, Brewer & Tomlinson have been awarded contract to pave High street, at \$20.015; Union paving brick on a concrete foundation with Bedford blue limestone and a Portland cement filler will be used.

East Liverpool, O.—John Ryan has the contract for paving Mulberry street, at \$4.300.

Piqua, O.—Joseph Small has the contract for sidewalks, curbs and gutters on Washington, Mound and Weber streets, at \$3,000.

Springfield, O.—Robbins & McDaniels have the contract for laying \$2,000 worth of cement sidewalks in the village of Quincy.

Pendleton, Ore.—The Warren Construction Company, Portland, has been awarded contract for 20,441 square yards of bitulithic pavement.

Meadville, Pa.—Marquiss & Wallace have been awarded the contract for paving Water street with brick; the International Construction Company will pave South Park avenue.

Regina, Sask., Canada.—The Warren Bituminous Paving Company, Toronto, Ont., has been awarded contract for 5,000 square yards of paving.

ROADS

Berea, O.—The town line road between Strongsville and Middleburg is to be paved.

Cincinnati, O.—The village of Springfield will receive bids, August 10, for \$17,500 4½ per cent. bonds, for resurfacing and improving the public highways. —Address Herman Duhme, Jr., Clerk, Wyoming, Ohio.

East Liverpool, O.—An ordinance is being considered for paving Calcutta road; bonds, \$7,000, will be authorized for the purpose.

Marion, O.—Bids will be received, July 25, for \$9,000 5 per cent. free turnpike road bonds. —M. J. Hinamon, Chairman, Board of Commissioners.

Newark, O.—Bids are invited for improving Broadway; \$9,000 is to be expended on the road. —J. S. Graham, Chairman, Board of Commissioners; Sam Houston, State Highway Commissioner.

Springfield, O.—Bids will be received, August 10, for \$17,500 4½ per cent. 20-year public highway improvement bonds.

Amherst, Va.—An election will be held, August 18, to decide question of issuing \$80,000 bonds for the county road.

Wheeling, W. Va.—Bids will be received, August 4, for \$12,000 5 per cent. National road improvement bonds. —Fulton Bond Company, care the Security Trust Company.

CONTRACTS TO BE AWARDED

Bedford, Ind.—Bids are invited, August 7, for constructing 70,000 feet of gravel or macadamized road. —Lawrence County Commissioners.

Brazil, Ind.—Bids are invited, August 7, for constructing 4,115 feet of gravel road in Van Buren township. —Clay County Commissioners.

Crownpoint, Ind.—Bids are invited, August 6, for constructing gravel roads in Hobart, Cedar Creek, Ross and Winfield townships. —Lake County Commissioners.

Greencastle, Ind.—Bids will be opened, August 4, for improving 26,000 feet of macadam road. —C. C. Hurst, County Auditor.

Jasper, Ind.—Bids will be received, August 6, for constructing 5¼ miles of macadam road in Columbia township. —Dubois County Commissioners.

Vincennes, Ind.—Bids are invited, August 7, for constructing 7,792 feet of gravel roads in Vigo township. —Knox County Commissioners.

Atlantic City, N. J.—Bids will be opened, August 1, for constructing 6.4 miles of gravel work, according to plans. —E. D. Rightmire, County Engineer.

Jersey City, N. J.—Bids will be opened, July 26, for improving Paterson Plank Road from the railroad track at Homestead to the hill at Secaucus. —John P. Egan, Clerk, County Freeholders.

Cleveland, O.—Bids will be opened, August 14, for grading Granger Hill, in accordance with specifications. —Julius C. Dorn, Clerk, County Commissioners; William H. Evers, County Engineer.

Coitsville, O.—Bids will be opened, July 26, for improving two miles of Oak street road by grading and macadamizing and draining the roadbed. —J. S. Palmer, Clerk, Board of Township Trustees.

Findlay, O.—Bids will be opened, July 31, for constructing five miles of stone pike in Delaware township, and one mile in Orange township. —Hancock County Commissioners.

Youngstown, O.—Bids will be opened, July 26, for grading and surfacing two-and-a-half miles of the Youngstown and Struthers road. —S. D. L. Jackson, Engineer.

CONTRACTS AWARDED

Charlton, Mass.—R. F. Hudson, Melrose, has been awarded contract for building State road, at \$4,195.

Garden, Mass.—Fred E. Ellis, Melrose, has been awarded contract for constructing State road, at \$3,876.

Hadley, Mass.—The Lane Construction Company has been awarded contract for building State road, at \$3,120.

Haverhill, N. H.—Bids will be opened, July 31, for macadamizing roads in Haverhill and Jeffrey, to cost \$7,000. —A. W. Dean, State Engineer.

Albany, N. Y.—Contracts for improving public highways have been awarded the following: Casey & Murray, Rochester; Corliss Construction Company, Troy; D. V. Ashley, Binghamton; Andrews Brothers, Mineola; William E. Baldwin & Co., Buffalo; Clinton Beckwith, Herkimer; F. A. Brotsch, Rochester; Brayer Brothers, Auburn; Mosier & Summers, Buffalo; J. W. Polearo, Pittsfield, Mass.; Joseph Walker, New Salem; Buckley Construction Company, Plattsburgh; Lane Construction Company, Meriden, Conn. —Henry A. Van Alstyne, State Engineer.

Delaware, O.—Norris & Christian, Marion, have been awarded contract for constructing Harlem and Center Village road, at \$31,691. —E. S. Mendenhall, County Surveyor.

Upper Sandusky, O.—W. W. Losey has been awarded the contract for constructing the Robinson pike in Grand township, for \$4,700, by the Marion County Commissioners.

Cresson, Pa.—J. C. McSpadden, Pittsburg, has been awarded section of State road to be built through Cambria township, at \$14,243.

SEWERAGE

Texarcana, Ark.—A system of sewerage, costing \$20,000, is to be installed.

New Haven, Conn.—Plans have been prepared for an overflow sewer, to cost \$40,000. —C. W. Kelly, City Engineer.

Charles City, Ia.—Council has decided to install a complete system of sewerage in the eastern section of the city.

Houghton, Mich.—Plans and specifications have been prepared for the new West Houghton sewer system, to cost \$20,000. —G. L. Clausen, Village Engineer.

Canton, O.—Council is considering the construction of a 400-foot sanitary sewer on Wheeler street and one 65 feet long in Linden avenue, of vitrified pipe. —C. C. Lloyd, City Clerk.

Cincinnati, O.—Bids will be received, August 13, for \$250,000 3.65 per cent. sewer bonds. —W. C. Culkins, City Auditor.

Elyria, O.—Resolutions have passed Council to construct sewers in District No. 2. —Frank R. Fauver, Clerk.

Hamilton, O.—Plans have been prepared for a sanitary sewer on Main street.

Oxford, O.—A plan is under way to build a sanitary sewer. Plans will be received.

Findlay, O.—Preliminary legislation has been enacted for constructing a \$1,400 sewer in Hurd avenue.

Fremont, O.—Preliminary legislation has been enacted for laying a sewer in Fifth street, of vitrified salt glaze pipe. —C. F. Bell, City Clerk.

Hamilton, O.—Council is considering the construction of \$1,600 worth of storm sewer in South Fifth street. —Homer Guard, City Clerk.

Martins Ferry, O.—Preliminary legislation has been enacted for constructing a sewer in Clinton street and in parts of Districts 5 and 6. —E. D. Lash, City Clerk.

Baumont, Tex.—The issue of \$40,000 sewer bonds is under consideration.

Franklin, Va.—An election will be held to decide question of issuing \$40,000 sewer and water bonds.

PROPOSED WORK

Charles City, Ia.—The city is arranging to install a complete sewerage system.

Des Moines, Ia.—Bids are invited for constructing a big sewer in Northwest Des Moines, estimated to cost \$30,000. —Board of Public Works.

Alliance, O.—The sewer bids recently received were rejected; the Clerk will readvertise.

Delaware, O.—Council is considering the sewerage of Maple street.

Greenville, O.—Council is considering the sewerage of West Main street.

Hamilton, O.—The Board of Public Service has decided to build a storm sewer in South Fifth street, between High and Ludlow streets; plans are being prepared. —City Engineer Dillon.

Mungo Junction, O.—Plans and estimates have been prepared for a complete sewer system. —Williams Engineering Company.

Mt. Vernon, O.—Council has adopted report of special committee, which inspected sewage disposal plants at Ashland, Marion and Mansfield, recommending that plans and specifications be secured for a \$40,000 plant. —Councilman Sefton.

Painesville, O.—The present sanitary sewer will be extended 120 feet to the east.

Salem, O.—Council has authorized the construction of a sewer in Fourth street, and has referred the matter of constructing a sewer in Washington street to the Engineer.

Sandusky, O.—On account of complaint of the Board of Health, Council will probably build a sewer into Mills street.

Steubenville, O.—Council is considering laying sewers in alleys between Seventh and Eighth streets.

Westchester, Pa.—Permission to construct a sewer system has been granted by Dr. Dixon, State Commissioner of Health.

CONTRACTS TO BE AWARDED

Lewiston, Idaho.—Bids are invited, August 8, for constructing sewers as follows: 5,300 feet of 6-inch; 27,100 feet of 8-inch; 5,150 feet of 10-inch; 4,150 feet of 12-inch; 2,350 feet of 15-inch; 1,150 feet of 18-inch; 250 feet of 24-inch; 3,100 feet of 30-inch pipe sewers; also 4,920 feet of 36-inch concrete or brick sewers; 96 manholes, and 47 flush tanks. —John E. Nickerson, City Clerk.

Champaign, Ill.—Bids were received, July 21, for constructing sanitary sewers in Fairland place. —George C. Farlo, Secretary.

New Orleans, La.—Bids are invited, July 30, for a system of sub-surface drainage in Union street from Carondelet to Baronne street, according to plans and specifications. —Charles R. Kennedy, City Comptroller.

Morris, Minn.—Bids will be opened by the Metropolitan Water and Sewerage Board, Boston, August 3, for constructing the Malden extension of the North Metropolitan Sewerage System, in accordance with plans, specifications and estimates. —William N. Brown, Engineer, Sewerage Works.

Morris, Minn.—Bids will be opened by the Common Council, July 30, for constructing a general sewer and septic tank, District No. 1, and joint district sewers Nos. 1-23, Nos. 6-10, and Nos. 14-23; also district sewers in sewer districts Nos. 7, 13, 14, 18, 19 and 23. —Loweth & Wolff, St. Paul, Engineers; C. R. Burpee, City Clerk.

South Omaha, Neb.—Bids will be opened, July 30, for constructing a sewerage system in accordance with plans and estimates; estimates: 8,500 lineal feet concrete sewer, 8 foot to 11 foot in diameter; 7,000 lineal feet 4 to 7 foot sewers; 16,000 lineal feet 18 inches to 4 feet in diameter. —E. M. Rohrbough, City Engineer; John J. Gillan, City Clerk.

Buffalo, N. Y.—Bids will be opened, July 30, for constructing brick sewers in Michigan street, Genesee street and Broadway; also tile sewers in Margaret, Merrimac and Mildred streets, and Englewood and Deveraux avenues. —F. G. Ward, Commissioner, Department of Public Work.

Chicago Junction, O.—Bids will be opened, July 26, for constructing 1,250 feet of 36-inch storm water sewer. —Riggs and Sherman, Toledo, Engineers; W. G. Gulbing, Village Clerk.

Cleveland, O.—Bids will be opened, July 26, for constructing sewers in East 80th street, West Boulevard and 120th street. —A. R. Callow, Board of Public Service.

Conneaut, O.—Bids will be received, July 30, for constructing 8,500 feet of sewers, part of District No. 4. —O. C. Darling, W. H. Leet, N. B. De Yoe, Board of Public Service; T. F. Lininger, City Engineer.

Dayton, O.—Bids will be received, July 27, for constructing sanitary sewers in several streets, according to plans and specifications. —William S. Miller, Clerk.

Dayton, O.—Bids will be received, July 27, for constructing storm sewers in several streets, according to plans and specifications. —William S. Miller, Clerk.

New Bremen, O.—Bids will be opened, July 26, for constructing a main sewer in Washington street. —A. N. Steineberry, Village Clerk.

Sandusky, O.—Bids will be opened, July 25, for constructing a sewer in Warren and Finch streets, according to plans. —Charles Thiem, Board of Public Service.

Evanson, Wyo.—Bids will be opened, August 6, for constructing 3,700 lineal feet, 15-inch tile pipe sewer; 3,020 feet, 12-inch tile pipe sewer; 300 feet 8-inch tile pipe sewer; 6,300 feet, 6-inch tile pipe sewer, and 31 brick manholes.—William Cook, Town Clerk.

CONTRACTS AWARDED

Bellevue, Ky.—J. H. McLane & Co., Newport, have been awarded contract for constructing sewers, at \$58,816; the trunk sewer project has been abandoned.

Pipestone, Minn.—William C. Fraser & Co., Rochester, Minn., have been awarded contract for constructing sewer.—S. W. Funk, City Engineer.

Bellevue, O.—J. B. McLain & Co. have been awarded contract for constructing a sewer, at \$58,816.

Cleveland, O.—Graves & Stevens have been awarded contract for building the outlet sewer of the intersecting sewer, at \$78,000.—A. R. Callow, Board of Public Service.

Painesville, O.—S. A. Haskills has been authorized by Council to begin the construction of a storm water sewer in Railroad street.

Madison, Wis.—J. H. Mitchell, Madison, has been awarded contract for constructing two and a half miles of sewers in Sherman avenue district.—J. F. Icke, City Engineer.

WATER SUPPLY

Mobile, Ala.—An election will be held to decide the question of issuing \$335,000 bonds to purchase the Bienville Water Supply Company.

Sylacauga, Ala.—Council has decided to issue \$16,000 bonds for improving the waterworks and electric-light plants.

Amite, La.—Council has been asked to call an election for \$50,000 waterworks, electric-light and school building bonds.

Battle Creek, Mich.—The citizens will vote on issue of \$150,000 bonds for developing the flowing wells at Verona as a water supply.

Grand Rapids, Mich.—The matter of issuing bonds for the purchase of additional pumping machinery is under consideration.

New York, N. Y.—Bids will be received, July 25, for \$500,000 corporate stock for waterworks improvements.

Niagara Falls, N. Y.—The Finance Committee recommends an appropriation of \$14,500 for installing an electric pump at the pumping station.

Bellaire, O.—Council is considering constructing a filtration plant; the installation of larger pumps at the waterworks plant is recommended.—L. E. Chapin, Canton, Engineer.

Tecumseh, Okla.—Bids will be received, August 6, for \$60,000, 5 per cent., 30-year, waterworks bonds.—R. J. Nox, City Clerk.

PROPOSED WORK.

Toccoa, Ga.—Plans have been prepared for a gravity waterworks system; bids are invited.—W. A. Matheson, Chairman, Waterworks Committee.

Decatur, Ill.—Arrangements are being made to install a filter plant; estimated cost, \$63,000.

Fort Wayne, Ind.—The Fort Wayne Waterworks Company invites bids for the construction of a new pumping station.

Hobart, Ind.—Bids will shortly be asked for constructing a waterworks plant.

Clarence, I. T.—The proposition to issue \$85,000 bonds to build a waterworks plant carried.

Holstein, Ia.—The city is to purchase a 55,000-gallon tank and a tower for the waterworks plant; cost, \$3,950.

Belding, Mich.—A large part of \$60,000, to be expended this year, will be used in laying water and sewer pipes.

Niagara Falls, N. Y.—Council proposes to install an electric pump at the city pumping station; estimated cost, \$14,500.

Newton, N. C.—A system of waterworks is to be installed.—John P. Yount, Mayor.

Grand Forks, N. D.—Bids are invited for the purchase of \$25,000 waterworks bonds, authorized a year ago.—Address, City Clerk.

Alliance, O.—The waterworks plant will be enlarged and improved at a cost of \$10,000.—Board of Public Service.

CONTRACTS TO BE AWARDED

Los Angeles, Cal.—Bids will be opened, August 2, for furnishing and laying 1,350 feet of pipe line at the Soldiers' Home.—T. J. Cochrane, Treasurer, H. H. D. V. S.

Washington, D. C.—Bids will be opened, August 4, for furnishing 600 tons of 8-inch cast-iron water pipe.—H. L. West, John Biddle, Commissioners, D. C.

Kendallville, Ind.—Bids were received by Council, July 24, for installing a water tube boiler, 150 h.p., and other equipment.

New Orleans, La.—Bids will be opened, July 31, for making extension to the water system at Jackson Barracks.—Capt. B. T. Clayton, Quartermaster, U. S. Army.

Kingsley, Mich.—Bids will be opened, August 2, for constructing a system of waterworks.—D. L. Ensign, President of Village.

Spring Lake, Mich.—Bids were opened, July 16, for constructing a complete system of waterworks, according to plans and specifications.—David M. Cline, President of Village.

St. Paul, Minn.—Bids will be received, August 9, for constructing addition to the pump house at Fort Snelling, and furnishing boiler and water feed heater and 3,000,000-gallon steel tank and trestle.—Amos W. Kimball, Captain and Quartermaster, U. S. Army.

Glasgow, Mont.—Bids will be opened, August 1, for material and labor for constructing waterworks and electric-light plant; waterworks will include approximately 13,775 cubic yards of trench excavation, laying pipe, constructing pump well and concrete reservoir, etc.—A. W. Mahon, City Engineer; J. J. Mullins, Clerk.

Garrettsville, O.—Bids will be opened, August 3, for constructing portions of the proposed waterworks plant, according to plans, approximately eight miles of four, six and eight-inch pipe, 8,000 pounds of special castings, fire hydrants, iron boxes, etc., will be required.—Chapin & Knowles, Canton, Consulting Engineers; W. E. Agler, Clerk, Board of Trustees.

Perrysburg, O.—Bids will be opened, July 28, for 240-horsepower triplex-power pumps, with piping valves; one 40-horsepower gasoline engine, with two driving pulleys, clutches, etc.—Riggs & Sherman, Toledo, Engineers; R. R. Hadshorn, City Clerk.

Philadelphia, Pa.—Bids will be opened, August 1, for constructing a filter plant at Queen Lane reservoir, according to plans and specifications.—Thomas L. Hicks, Director of Public Works.

Nashville, Tenn.—Bids will be opened, August 16, for furnishing and erecting a 20,000,000-gallon pumping engine of the crank and fly-wheel pattern.—John T. Ahearn, Superintendent, Board of Public Works.

Gillette, Wis.—Bids are invited, August 1, for furnishing 642 feet of 8-inch pipe and laying same 6½ feet deep, two hydrants with gate valve and two discharges.—L. B. Stuelke, Village Clerk.

Vancouver, B. C., Canada.—Bids are invited, August 1, for about 750 tons of cast-iron water pipe.—Waterworks Committee.

PUBLIC LIGHTING

Argenta, Ark.—A franchise to establish an electric-light and power plant has been granted John G. Vogel.

Connersville, Ind.—A franchise to construct and operate an artificial gas and electric-light plant has been granted the Connersville Gas Company.

Detroit, Mich.—Permission has been granted Frank I. Nixon, and others, to construct a power dam on the Tittabawassee river in Edenville, to generate electricity; between \$800,000 and \$1,000,000 will be expended.—Midland Board of Supervisors.

McComb, Miss.—An election will be held, August 4, to pass an issue of \$30,000 bonds for an electric-light plant.

Natchez, Miss.—Council has petitioned for authority to issue \$75,000 electric-light bonds.

Grand Forks, N. D.—A franchise to erect an electric-light plant has been granted Edward L. Healy, Red Lake Falls, Minn.

Bryan, O.—Bids will be received, August 4, for \$10,000, 5 per cent., electric-lighting bonds.—F. W. Radabaugh, Village Clerk.

Hamilton, O.—At a special election in August the citizens will vote on issue of \$225,000 bonds for enlarging the gas, electric-light and waterworks plant.

Reading, Pa.—The People's Light Company has been incorporated with a capital stock of \$10,000 to manufacture and supply gas for lighting purposes in Berks County.—John H. Keppelman, John H. Rely, Theodore M. Keppelman, incorporators.

Spokane, Wash.—The Suave Electric Company has been incorporated with a capital stock of \$750,000.—S. H. Suave, J. H. Robbins, W. W. Robbins and Thomas J. Purcell, incorporators.

PROPOSED WORK.

Montgomery, Ala.—The Citizens' Light, Heat and Power Company has been reorganized; improvements are to be made.—Alex. Rice, President.

Washington, D. C.—Electrical Engineer Allen recommends that P street, between Dupont Circle and 32d street, be lighted with arc lamps.—H. L. West, John Biddle, Commissioners, D. C.

Greenearth, Ind.—An electric-light plant, to cost \$6,000, will be installed at De Pauw University.

Moberly, Mo.—An electric-light and power plant will be established by S. M. Hexter, of Cleveland, Ohio.

Potsdam, N. Y.—The citizens have voted to bond the village for \$24,000 to construct a municipal plant to light the streets.

Bryan, O.—The American Diesel Company will install a new lighting and pumping plant, to cost \$30,000.

Chillicothe, O.—Bids will shortly be invited for city lighting.

Mungo Junction, O.—Council has passed an ordinance for a new lighting and water plant.

Knoxville, Tenn.—A new lighting system is to be installed.—Board of Aldermen.

CONTRACTS TO BE AWARDED

Mobile, Ala.—Bids will be opened, August 10, for furnishing the city with 450 street lights, for five and ten years, from November 1, 1907; also on the erection and operation of a 600-light plant for ten years, based on municipal ownership.—Patrick J. Lyons, Mayor.

Cartersville, Ga.—Bids were opened, July 23, for furnishing materials and constructing a complete electric-light plant, including a 200-kilowatt alternator and electrical equipment, both belted and direct-connected; a 300-horsepower Corliss or four-valve engine, both belted and direct-connected; meters, transformers, arc lamps, etc.; two 150-horsepower boilers, heaters, feed pumps, etc.—Paul Gilbreath, Mayor; J. B. McCrary, Atlanta, Engineer.

Rochelle, Ill.—Bids will be received, July 26, for constructing a powerhouse and reservoir of 250,000 gallons capacity.—Thomas M. Keegan, City Clerk.

Hyattsville, Md.—Bids will be opened, July 28, for constructing an electric-lighting plant on the linework.—C. L. Reeder, Baltimore, Consulting Engineer; Joseph R. Owens, Mayor.

Lowellville, O.—Bids will be opened, August 2, for installing an electric-light plant, comprising boiler, feed pump engine, dynamo and switchboard.—Board of Electric Light Trustees.

CONTRACTS AWARDED.

Beloit, Kan.—A. T. Rogers has been awarded the contract for the electric lighting of the new State Building at the Industrial School.

Garden City, Kan.—The D'Olier Engineering Company, Philadelphia, has been awarded the contract to install an electric plant, in connection with the Garden City Irrigation project.

Detroit, Mich.—The Western Electric Company has been awarded contract for 900 arc lamps, and the National Carbon Company will supply carbons for \$10,135.—Clifford Elliott, President, Public Lighting Commission.

Brooklyn, N. Y.—The Stanley Electric Manufacturing Company has been awarded contract to furnish motors to be used in connection with the installation of the high-pressure water service; approximate expenditure, \$60,000.

New York, N. Y.—Abbot-Gamble Company has been awarded contract to construct underground conduits for the Edison Electric Illuminating Company, at \$25,000.

Grand Forks, N. D.—Dinnie Brothers have been awarded the contract for constructing a new powerhouse for the Grand Forks Gas and Electric Company; cost, with machinery, \$40,000.

FIRE EQUIPMENT AND SUPPLIES

Golden, Col.—Council is preparing to purchase 400 feet of hose.

Freeport, Ill.—A new fire house will probably be erected in East Freeport.

Indianapolis, Ind.—Arrangements are being made to erect a \$15,000 engine house.

Detroit, Mich.—Arrangements are being made to erect a fire house at Solbay and River streets; a steamer will be installed.

Owatonna, Minn.—Bonds, \$15,000, have been voted for the erection of a fire hall.

Warroad, Minn.—A fire company is to be organized and apparatus secured.—N. H. Shears, Chief.

Hattiesburg, Miss.—The city has voted to install a full-paid Fire Department, and to place in service a new ladder truck and other apparatus, and the Gamewell fire alarm system.

Reading, Pa.—As the result of a \$100,000 fire which destroyed the plant of the Prospect Dye Company, city officials and the municipal committee are considering the advisability of establishing a paid Fire Department, instead of the volunteer force.—Mayor Gerber.

Belton, Tex.—Plans are being prepared to build a fire station.

CONTRACTS TO BE AWARDED

Washington, D. C.—Bids will be received, July 30, for furnishing the Fire Department with 48 horses.—William T. Belt, Chief Engineer; Henry L. West, John Biddle, Commissioners, D. C.

Brooklyn, N. Y.—Bids will be received, July 31, for furnishing and delivering one extra first-size steam fire engine, and one first-size engine.—John H. O'Brien, Fire Commissioner.

New York, N. Y.—Bids will be received, July 31, for furnishing and delivering one extra first-size steam fire engine; one first-size steam fire engine; two third-size steam fire engines, and one 65-foot aerial hook and ladder truck.—John H. O'Brien, Fire Commissioner.

New York, N. Y.—Bids will be received, July 31, for furnishing all the labor and materials required for constructing and delivering three steel-screw propelling fireboats.—John H. O'Brien, Fire Commissioner.

New York, N. Y.—Bids will be opened, August 1, for furnishing, delivering and constructing, for the high-pressure fire service, suction mains and appurtenances for salt water, for the pumping stations at Gansevoort and West streets, and at Oliver and South streets.—William B. Ellison, Commissioner, Department of Water Supply, Gas and Electricity.

New York, N. Y.—Bids were received, July 18, for furnishing all the labor and materials necessary for additions and alterations to buildings of Engine Companies No. 3 and No. 34.—John H. O'Brien, Fire Commissioner.

Cleveland, O.—Bids were opened, July 14, for erecting a building for hook and ladder station in Superior avenue.—William H. Ney, Secretary.

CONTRACTS AWARDED

Oklahoma City, Okla.—The contract of D. W. Van Meter for building a new fire station has been approved.

MUNICIPAL BUILDINGS

Brazil, Ind.—Council has approved an issue of \$20,000 school bonds.

Paddin, I. T.—The city offers \$3,000 school bonds for sale.—L. L. Kickman, City Clerk.

Ripley, Mich.—The proposition to issue \$50,000 school bonds carried.

Faribault, Minn.—Bonds, \$30,000, have been voted for erecting a school house.

St. Peter, Minn.—The citizens will vote on issue of \$35,000 bonds at the school election, July 31.

Estancia, N. M.—Bids will be received, August 15, for \$7,000 court house and \$5,000 current expense bonds; interest, 5 per cent.—John W. Corbett, Chairman, Board of Commissioners, Torrance County.

Jamestown, N. Y.—The School Board invites bids for \$1,500 school bonds.

New York, N. Y.—Bids will be opened, July 26, for constructing the generating plant and electrical work, also for the steam power, etc., heating and ventilating for the Bronx Borough courthouse.—Louis F. Haffen, Borough President.

Cleveland, O.—Bids will be received, July 26, for \$100,000 4 per cent., 30-year bonds of the Lakewood Village School District.—J. O. Gordon, Clerk.

Pittsburg, Pa.—Bonds, \$400,000, will be issued to pay for the Third Presbyterian Church property, and for new work added to the contract for the jail building.—C. B. Price, Commissioner.

Royse City, Tex.—The Attorney General has approved an issue of \$43,000, 5-40-year, 5 per cent. school bonds.

PROPOSED WORK

Nokomis, Ill.—Bonds, \$5,000, have been voted for erecting a City Hall.

Springfield, Ill.—Plans have been accepted by the Supreme Court Commission for the Temple of Justice to be erected at a cost of \$300,000.

Russellville, Ky.—It is proposed to construct a schoolhouse.

Wrenshall, Minn.—A school building will be erected.—J. J. Wangenstein, Duluth, Architect.

Carthage, Mo.—Preliminary plans are being prepared for new Federal building, to cost \$75,000.—James Knox Taylor, Supervising Architect, Washington, D. C.

Oneonta, N. Y.—At a special election the village voted to issue \$50,000 bonds for a municipal building; plans and specifications are desired.—Henry D. McLaury, Village Clerk.

Oneonta, N. Y.—The taxpayers of Oneonta School District carried a proposition to bond

the district for \$100,000 to construct and equip a modern school building; plans and specifications are being prepared.—Henry D. McLaury, Village Clerk.

McGregor, Tex.—An issue of \$8,000 4 per cent. school bonds has been voted.

Superior, Wis.—An issue of \$100,000 bonds will be made to build an insane asylum.—Douglas County Board.

Raton, N. M.—An issue of \$10,000 school bonds has been voted.

Chilocca, Okla.—Bids were received, July 16, for furnishing miscellaneous supplies.—Samuel M. McCurran, Superintendent, Indian School.

Huntsville, Tex.—Bids were received, July 17, for \$15,000 4½ per cent., 10-40-year school bonds.—G. A. Wynne, Clerk.

Sturgeon Bay, Wis.—Bids were received, July 17, for constructing a City Hall, in accordance with plans.—Henry Leonhardt, City Clerk.

CONTRACTS AWARDED

Washington, D. C.—The American Bridge Company has been awarded contract for steel work for the second, third and attic floors of the National Museum building.

Syracuse, N. Y.—The Art Metal Company, Jamestown, N. Y., has been awarded contract to furnish metallic furniture for the new Onondaga County Courthouse for \$77,659.—Courthouse Commission, Board of Supervisors.

Sumter, S. C.—Morse De Leon, Atlanta, Ga., has been awarded the contract for a \$5,000 Courthouse.—Edwards and Walter, Columbia, Architects.

Baraboo, Wis.—Smith Brothers, Kaukauna, have been awarded the contract for a high school building.—Van Ryn and De Gelleke, Milwaukee, Architects.

BRIDGES

Fort Worth, Tex.—Bids will be received for four bridges in Tarrant county, two across Trinity river, one across Village creek and a fourth across May creek.—R. F. Milam, County Judge.

Marinette, Wis.—Several bridges will be built.

Vancouver, B. C.—Bids will be received for building a steel bridge over Falls Creek Harbor, at a cost of \$500,000.—Arthur McElroy, City Clerk.

PROPOSED WORK

Buena Vista, Col.—A county bridge, six miles from this place, crossing the Arkansas river, burned; it will be rebuilt.

Atlanta, Ga.—Two steel bridges will be built across the Chattahoochee river by the Commissioners of Fulton county, in conjunction with the Commissioners of Cobb county; sites recommended by committee are Johnson's Ferry, Power's Ferry and Ford's Ferry.—Commissioners E. V. Carter, H. E. W. Palmer and E. B. Rossier, Committee.

Montezuma, Ga.—Plans have been prepared, and a contract will be let shortly, for a steel bridge over Beaver creek.—Macon County Commissioners.

Utica, Ill.—At special meeting of Highway Commissioners of Deer Park and Utica townships with special bridge committee of Board of Supervisors, La Salle county, arrangements were made to replace \$70,000 bridge at Utica destroyed by storm, according to plans to be submitted to the War Department.

South Bend, Ind.—It has been decided to move the present bridge at La Salle avenue, to replace the old wooden four-mile bridge, and move the Main street bridge in Mishawaka to the township line, between German and Portage townships.—Commissioners of St. Joseph County.

South Cambridge, N. Y.—An iron bridge will be constructed near Lee's Crossing.

Charlotte, N. C.—The Mecklenburg County Commissioners have voted \$5,000 towards constructing an \$8,000 bridge across the Catawba river at Rozzell's Ferry Crossing, on piers of a bridge burned during the Civil War.

IN THE MARKET AT HOME

City of Statesville, N. C., wants to buy or rent a new or second-hand sewer excavator.

E. L. Deans, Gatesville, N. C., wants a two-cylinder marine gasoline engine.

B. W. Fisher, Phillippi, W. Va., wants a second-hand gasoline engine not less than six horsepower.

Florida White Pressed Brick Company, Jacksonville, Fla., wants a crusher and grinder for quicklime.

L. D. Lennon, Wilmington, N. C., wants an old 40-horsepower portable boiler.

George Lewis, Homer, La., wants a 10 or 15-horsepower boiler.

R. C. McCracken, manager, Portland Stone and Paving Co., Greenville, Ky., wants a small concrete mixer.

Muskogee Brick and Terra Cotta Company, Columbus, Ga., wants a complete brick-making plant.

Alfred Newlander, engineer, St. Augustine, Fla., wants a 1¼-yard dipper dredge.

Ouachita Concrete Company, West Monroe, La., wants best grade of Portland cement.

R. S. Purser, superintendent, Brookhaven Light and Water Works, Brookhaven, Miss., wants a steam or gas engine, with boilers or producers sufficient to develop 300 kilowatts.

L. R. Putnam, general manager, Northwest Arkansas Lumber Company, Fayetteville, Ark., wants a new 125-horsepower boiler.

Willis Shaw, 171 La Salle street, Chicago, Ill., wants a 1-yard orange peel bucket, 2 derrick hoists, 12 to 16-horsepower, double cylinders, double drums, with boilers connected, all second hand.

Thomas M. Swift, Elberton, Ga., wants a 100 and a 150-horsepower gasoline engine.

ABROAD

RIO DE JANEIRO, BRAZIL.—A building boom in progress and municipal improvements on a large scale have created a demand for Portland cement. Address Consul-General George E. Anderson, Rio de Janeiro.

WANTS

INSPECTOR.—Of construction; understands brick, stone, reinforced-concrete; steel frame, bridge and dam construction; engage with engineer, architect or owner; first-class reference. KEY, EDWARD LYNCH, Mamaroneck, N. Y.

DRAUGHTSMAN, mechanical; familiar with shop practice and machine design; capable of measuring, making complete working drawings of special machinery; must be accurate, neat and rapid; state experience and salary. M. D., Municipal Journal.

DRAUGHTSMAN wanted by company building, elevating and conveying machinery; experience in this line desirable but not absolutely essential; state experience, salary expected and when able to report for duty. Address J., Municipal Journal.

DRAUGHTSMAN, young man, good penman, bright beginner, in store and office of manufacturing firm; give age and salary. L. F., Municipal Journal.

For Machines to Drill, Blast and Test Holes and Water Wells, write "LOOMIS CO., TIFFIN, O."

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A COMPENDIUM

Current Topics of Municipal Interest—
Opinions on City Affairs

Cuban Development.—The Cuban Congress has approved a bill authorizing the Executive to spend up to \$1,000,000 to encourage immigration. Eighty per cent. of the amount is to be spent in bringing families from Europe and the Canary Islands, and the remainder to bring laborers from Norway, Sweden, Denmark, and northern Italy. The opponents of the bill asserted that 54,000 immigrants came to Cuba during the last year of their own accord, and that the result of the bill would be to compel the Government to pay the passage of such persons in the future. —Daily Circular Reports.

Landlord and Tenant.—The agent, in making a lease for his principal, should sign the name of the principal, and not his own name. It is not necessary that the name of the agent should appear in the body of the lease at all. The lease is the principal's lease, and not the agent's. If it is required that there be a seal, the seal must be opposite the principal's name; and if the agent signs the principal's name and writes thereunder "Per John Smith, Agent," he need not put the seal opposite his own name. The agent should never sign his own name and follow it with the expression "Agent for," naming the principal. A lease so signed is a lease by the agent, and not a lease by the principal. —The Caterer.

Women as Inventors.—Women's inventions recorded at the Patent Office already number a good many thousands. The first one dates back to 1809, and was granted to Mary Keis, for a method of weaving straw with silk thread. Nearly all of the early patents granted to persons in petticoats seem to have been for articles of apparel, cooking utensils, or other things designed for use or ornament about the house. —The Technical World Magazine.

The Destruction of San Francisco.—Within twenty minutes after the earthquake a hundred fire-calls were sent in to the different stations. In a few minutes more the whole available force was out. The engines got to work, but the supply of water gave out immediately—the engines gave a cough, the nozzles spat air, and the men gazed at each other in consternation. The suction pipes were dropped into the sewers, but that supply was soon exhausted. Black despair settled upon every person. The city was doomed, for the flames were gathering strength in several quarters. The soldiers were called out, gunpowder and dynamite were secured, and a great fight began. From hour to hour, from day to day, it continued, but the flames spread relentlessly. Soon Golden Gate Park, with its 1,050 acres, was the only refuge, and at one time it contained about 200,000 homeless people—millionaires, bankers, merchant princes, professional men, workmen, and the inhabitants of Chinatown, all were on the one level. Food, furniture and wealth were gone; there were only men, women, children and domestic pets. A hundred babies were born that first night in the park, and the general suffering for many nights was intense. —The Canadian Magazine.

A DIRECTORY OF MUNICIPAL AND
ALLIED SOCIETIES

- July 24-25.
Western New York Firemen's Association.—Convention, Brockport, N. Y.—C. F. Foley, Secretary, Lockport, N. Y.
- July 24-26.
Central New York Volunteer Firemen's Association.—Convention and tournament, Ithaca, N. Y.—James Murphy, Secretary.
- July 31.
Convention to organize a Firemen's Association, Brandon, Manitoba, Can.—Chief E. G. Wiswell, Secretary, Brandon.
- August 1-2.
C. O. S. Y. S. Firemen's Association.—Convention, Canadaigua, N. Y.—F. G. Hulse, Secretary.
- August 1-3.
Northwestern Pennsylvania Firemen's Association.—Convention, Southport, Pa.—Fred Seger, Secretary, Emporium, Pa.
- August 7-9.
Illinois State Firemen's Association.—Tournament, Urbana.—W. E. Price, Secretary, Champaign, Ill.
- August 7-9.
Provincial Volunteer Firemen's Association.—Convention, Hamilton, Ont.—W. J. Armstrong, Secretary, Toronto Junction.
- August 8-9.
Northern Central Firemen's Association.—Convention, Pittsford, N. Y.—W. O. Green, Secretary, Fairport.
- August 8-9.
Concrete Block Machine Manufacturers' Association.—Annual meeting, Detroit, Mich.—S. L. Wiltse, Secretary, Jackson, Mich.
- August 14-16.
National Firemen's Association.—Convention, Roanoke, Va.—O. J. McCarthy, Secretary, P. O. Box 600, St. Louis, Mo.
- August 14-16.
Nebraska State Firemen's Association.—Convention and tournament, Fremont.—E. A. Miller, Secretary, Kearney.
- August 14-17.
Western Pennsylvania Association.—Convention, McDonald, Pa.—W. H. Sharal, Secretary, Braddock.
- August 15-16.
Five County Volunteer Association.—Convention, Canton, Pa.—E. J. Cleveland, Secretary.
- August 15-17.
International Association of Municipal Electricians.—Annual meeting, New Haven, Conn.—Frank P. Foster, Secretary, Corning, N. Y.
- August 16.
New England Veteran Fireman's League.—Hand Engine Muster, Providence, R. I.—W. H. Hathaway, Secretary, Hyde Park, Mass.
- August 21-22.
Interstate Firemen's Association.—Tournament, Carroll, Ia.—J. H. Post, Secretary, Carroll.
- August 21-24.
New York State Firemen's Association.—Convention, parade and tournament, Jamestown, N. Y.—Thomas Honohan, Secretary, Frankfort, N. Y.
- August 22-24.
Virginia State Firemen's Association.—Convention, Richmond.—G. C. Cumming, Secretary, Portsmouth, Va.
- September 26-28.
League of American Municipalities.—Tenth annual convention, Chicago.—John MacVicar, Secretary, Des Moines, Iowa.
- September.
Municipal Civil Service Commissions of all cities in New York State.—Under auspices of State Civil Service Commission, Albany, N. Y.
- September.
New England Water Works Association.—Annual convention, White Mountains.—Willard Kent, Secretary, 715 Tremont Temple, Boston, Mass.
- October 9.
American Society of Municipal Improvements.—Annual convention, Birmingham, Ala.—George W. Tillson, Secretary, Municipal Building, Brooklyn, N. Y.
- October 9-12.
International Association of Fire Engineers.—Annual convention, Dallas, Tex.—Jas. McFall, Secretary, Roanoke, Va.
- October 15-19.
American Street and Interurban Railway Association.—Annual convention, Columbus, Ohio.—B. V. Swenson, Secretary, 30 Wall street, New York City.
- November 14-16.
International Congress on Tuberculosis.—New York City. (The principal purpose of the congress will be that of urging preventive legislation against tuberculosis, the adoption of municipal and government sanitariums and discussion of all the questions involved.)

WHO'S WHO IN
MUNICIPAL WORK

BARNEY, Charles Neal, Mayor of Lynn, Mass., born at Lynn, June 27, 1875; son of William M. and Mary (Neal) Barney; educated in public schools, Tufts College, Boston University Law School; lawyer by profession and member of the firm of Lummus & Barney; trustee of the Commonwealth Savings Bank; actively identified with philanthropic societies; lecturer and writer on civic topics; member Common Council 1900 and 1901 (president); member Board of Aldermen 1903 and 1904; thirtieth Mayor (Republican), 1906. Residence, Lynn, Mass.

SEWELL, John Stephen, Captain Corps of Engineers, U. S. A., was born at Butler's Landing, Tennessee, January 16, 1869; educated in the public schools at Louisville, Ky.; went to the Military Academy in June, 1887; graduated in June, 1891, and was appointed additional second lieutenant in the Corps of Engineers. Attended the Engineer School of Application at Willets Point, N. Y., from October, 1891, to July, 1893; from July, 1893, till April, 1897, was engaged on building work in Washington, D. C., as assistant to Colonel John M. Wilson, the officer in charge of public buildings and grounds. From April, 1897, till July, 1898, was in Boston, Mass., in charge of fortification and submarine mining work under the orders of Col. S. M. Mansfield, Corps of Engineers. From July, 1898, until about December 1, 1898, was in the field as senior major of the First U. S. Volunteer Engineers, most of the time in Porto Rico. Since January 1, 1899, has been stationed in Washington, D. C., in charge of Government buildings, including the new building for the Government Printing Office, the buildings for the Army War College and Engineer School, at Washington Barracks, D. C., and the new buildings for the Department of Agriculture, and the construction work at the U. S. Soldiers' Home, Washington, D. C. Among the details of building work, has paid special attention to the question of fireproofing and reinforced concrete. Residence, Washington, D. C.

WILLIAMS, Arthur, born August 14, 1868; was educated in the public schools (New York, Brooklyn, Hartford), and in private schools. Entered service of the New York Edison Company, February, 1885, as assistant in the chemical meter department. Was appointed Superintendent of Interior Construction, 1887. Electrician of the company (then operating only Pearl Street Station), 1887 or 1888. Superintendent of Third District, 1888; Superintendent of Underground Department, 1889; General Inspector, 1890 or 1891; General Agent, 1893. Has exercised the functions of both the General Inspector's and General Agent's Departments since that time. Vice-president of the Yonkers Electric Light and Power Company, 1906. Elected as Associate, American Institute of Electrical Engineers June 23, 1897. President of the New York Electrical Society, 1901-1902. National Electric Light Association.—Second Vice-President, 1904-1905; First Vice-President, 1905-1906; elected President June 8, 1906. Member Brooklyn Riding and Driving Club, Yonkers City Club, National Arts Club, Municipal Art Society, Electrical Club, Union League Club, New York. Residence, New York, N. Y.

LEGAL DIGEST—

A Summary and Notes of
RECENT DECISIONS

LIABILITY OF WATER COMPANY

Robert Mugge vs. Tampa Water Company.—Mugge had sued the Water Company for \$25,000 damages for the failure to supply sufficient water and pressure to extinguish the fire, which destroyed a two-story brick building owned by him. The case was decided against him in the circuit court, but the opinion of the supreme court reverses the decision of the lower court and holds the Water Company liable for damages. The opinion is one of a very small number in which the courts have held that waterworks companies are liable for damages to property owners for failure to supply sufficient water to extinguish fires. Mr. Justice Hocker says: "We are of the opinion that the defendant in error enjoying, as it does, extensive franchises and privileges under its contract such as the exclusive right to have special taxes levied on the property of the citizens for its benefit, the right to use the streets with its mains and hydrants, the right to charge tolls and regulate the use of water, not to mention others, has assumed the public duty of furnishing water for extinguishing fires, according to the terms of its contract, and that for negligence in the discharge of this duty, whereby the Fire Department, adequately equipped and prepared, was not furnished with water according to the contract and the property of the property owner was on account of such negligence in furnishing water, destroyed, it is liable to him for the damages suffered, in an action of tort. We are further of the opinion that it was not amenable to the demurrer and that the circuit judge erred in sustaining same. The judgment is reversed at the cost of the defendant in error and the cause is remanded for further proceedings."—Florida Supreme Court, Tallahassee.

RIVER POLLUTION—DAMAGES

Mayor Henry W. Doremus vs. City of Paterson.—The Court of Errors affirmed the decision of the Chancery Court against the city of Paterson, in a suit brought five years ago by Mayor Henry W. Doremus, of Newark, and other complainants who own property along the Passaic river, alleging that their property was damaged by pollution of the stream by Paterson sewage. The complainants allege if the present system of sewerage were continued their loss in property valuation would amount to \$2,300,000, and they prayed the court to compel Paterson to compensate them for the loss already suffered and to stop the nuisance.—Court of Errors, Trenton, N. J.

UPHELD ROAD TAX

St. Louis and Southwestern Railway vs. Sheriff Kavanaugh.—The court has upheld the road tax amendment of the constitution. The railroad claimed that the amendment was never legally adopted. The cotton belt is the only road in the case, but all other roads in the State are affected and will abide by the result.—Arkansas Supreme Court, Little Rock.

ELECTRIC CURRENT—DAMAGES

James Eaton vs. City of Weiser.—A decision was rendered against the city of Weiser for \$1,050 in favor of James Eaton, a boy who was injured during March, 1904, by coming in contact with a live wire of the city electric light system. The wire had broken loose from a pole and hung so low across the roadway that it struck young Eaton, who was riding horseback. It occurred after dark.—Idaho Supreme Court, Weiser.

SENTENCE SUSPENDED

State vs. William W. Rose, Mayor.—The sentence of \$1,000 fine or confinement in jail until paid, which was imposed on Mayor Rose, of Kansas City, Kansas, by the State Supreme Court for contempt in resuming office after the court had ousted him, has been suspended. The trouble arose last spring when the Attorney General of Kansas instituted proceedings to oust Mayor Rose because he declined to enforce the laws of the State prohibiting the sale of liquors. The writ of error granted carries with it a supersedeas suspending the order of the court until the United States Supreme Court can pass upon the questions raised by Rose, which will probably be a year from next November, unless the court advances the case out of turn and hears it at the coming term.—Decision by Judge Brewer, U. S. Supreme Court.

METHOD OF PROCEDURE

Schau vs. Municipal Civil Service Commission.—The holding that the action of the municipal and State Civil Service Commissions in classifying a position as in the competitive or the exempt class is not judicial or quasi-judicial and their determination in that respect is not, therefore, subject to review by certiorari. If relief in the courts is sought from the determination of the commissioners it must be by mandamus.—New York Court of Appeals.

BOOK REVIEWS

Municipal Ownership in Great Britain. By HUGO R. MEYER, New York: The Macmillan Company, 1906. Cloth, 5½ by 8 inches, 340 pages. This is one of a series of four volumes which gives results of investigations by Prof. Meyer, formerly a teacher of political economy at the University of Chicago, on government ownership and operation of public service utilities. The author's opinion, favoring private ownership, does not prevent him from going into details at such length that they might lead others to a different conclusion. However, to let him have his argument: The Tramways Act, so far back as 1870, discouraged the building of street railways by giving municipalities the option of purchasing the railroad after 21 years. As a result of burdensome conditions imposed on the street railways, British cities are not as well provided with street railways as American cities of the same size. The author reviews the situation in considerable detail and shows how railroad construction has been retarded in Glasgow, Edinburgh, Birmingham, Manchester and London. The situation in the gas industry is explained and the conclusion reached that industries initiated by private enterprise were taken over by cities on compulsion, when they had proved successful. The facts cited, however, appear to show that municipal gas is generally better and cheaper than private gas, and besides sinking funds are created to wipe out the capital charge. The author claims that municipal investments in gas enterprises have held back the development of electric lighting, and he seems to prove his contention. Looking at the question from another point of view, he considers the effect of municipal ownership first on the consumer, who is deprived of facilities that private ownership would otherwise offer; second, on the manufacturer whose field of operations is limited thereby; and third, on the wage earner whose opportunities for employment are unnecessarily restricted. In conclusion the author declares that industrial development is due to individual initiative, but adds: "Only as a matter of last resort, of the last means of escape from the ills that can no longer be borne, should we have recourse to extending the functions of the State or city." It appears to the reviewer that if we should be driven to this last resort and have to escape the conditions where the profits of municipal industries pay a large share of the taxes, that thought will cheer us on our way. Supplied by the Municipal Journal and Engineer at \$1.60 postpaid.

The City That Was.—A Requiem of Old San Francisco. by WILL IRWIN. B. W. Huebsch, New York City. Stiff art paper, 4¾ by 7 inches; 47 pages. This charming little book, like a sip from a vintage of rare old port, is none the worse for being a reprint from the New York "Sun." It is a Bohemian record, in which quaint corners, quaint characters and still quaint scenes are depicted in a pleasant vein over the closing Coffee and Curacao. The inroads of concrete and steel and the advent of the skyscraper will blot out even the localities that the author so chattily gossips about, China-Town, six blocks by two, sheltering thirty thousand almond-eyed celestials, has already gone completely, and although there will arise a bolder and more beautiful city, the remembrance of the one that was, will, after all, continue to linger with us like the scent of our last, best cigar. If Mr. Irwin had only introduced some thumb nail pen-and-ink marginal sketches his Classicette would have been well-nigh perfect. Supplied by the Municipal Journal and Engineer at 55 cents postpaid.

Pictorial Annapolis, Anne Arundel and the Naval Academy.—By Elihu S. Riley: King Bros., printers, Baltimore, Md., 1906. Paper, 8 by 11 inches. The author has written several books on Maryland history and antiquities, and is an authority on the subject. The reading matter, covering twenty odd pages, is necessarily brief, and the illustrations are, of course, the chief features of the book; they are of ancient and modern buildings and of people. "Carvel Hall," of Richard Carvel fame, is the first illustration. We note in the picture of "Acton" the statement that the bricks were brought from England, a statement which, in view of recollections of John William Palmer's writings on Maryland history, is open to question. Supplied by the Municipal Journal and Engineer at 35 cents postpaid.

Kenney's Hotel Directory. New York.—Flexible leather, 3 by 5½ inches, 300 pages. This pocket guide contains a complete list of hotels, with rates, in the United States, some American countries and Europe, as well as some statistical information useful to the traveler. Supplied by the Municipal Journal and Engineer at 55 cents postpaid.

INCORPORATIONS

When our readers desire to correspond with any of the following companies, they should address the company itself or a director, incorporator or other official or partner by name to the address (if given) under such name. This will prevent letters being returned and marked "unknown."

A. J. Corcoran (Incorporated), 761 Jersey avenue, Jersey City, N. J. Erecting pumping plants, windmills, towers and tanks of steel, wood, etc. Capital, \$100,000. Incorporators: Andrew J. Corcoran, Mrs. Elizabeth J. Corcoran, Robert G. Corcoran, Miss Elizabeth M. Corcoran, all as above.

Artisan School. Trades school. Capital, \$50,000. Incorporators: Frederick R. Hazard, Salvay, N. Y.; Herbert H. Franklin and Willard C. Lipe, Syracuse, N. Y., and others.

Brooklyn Eastern District Terminal. Navigation, operate boats, etc. Capital, \$100,000. Incorporators: Robert F. Potter, 36 Wall street, New York; John H. McCafferty, 276 Broadway, Brooklyn; James B. Eustie, 36 Wall street, New York, and others.

Edwards Electrical Construction Company. Electrical work. Capital, \$10,000. Incorporators: Max J. Levy, 1048 Morris avenue, the Bronx; Jacob D. Jais, 215 West 105th street; Maurice Deiches, 271 Broadway, all of New York.

Federal Voting Machine Company. Manufacturing voting machines, etc. Capital, \$30,000. Incorporators: S. M. Davis, 138 Liberty street, New York; E. Chrystie, 27 William street, New York; Edward Terry, Jr., 300 Clifton place, Brooklyn.

Hoosac Valley Lime and Marble Company. To quarry stone, manufacture brick and cement. Capital, \$150,000. Incorporators: Thomas D. Connors, 1123 Broadway; Patrick H. McNulty, 550 West 23d street; John J. Cavanagh, 260 West 23d street, all of New York.

John Kelly Plumbing and Construction Company, Incorporated. To construct houses, bridges, plumbing, gas fitting, etc. Capital, \$10,000. Incorporators: John Kelly, 57 East 101st street; Bernard J. Kelly, 4 New Chambers street, both of New York; Frank Genninger, 475 Broadway, Long Island City, L. I.

Manhattan Towing Company. Incorporators: Harry B. James, 143 Liberty street; Henry L. Joyce, 151 West 61st street; Clarence T. Snyder, 143 Liberty street; Charles D. O'Connell, 60 Wall street; Josiah Y. Knowlton, 41 West 27th street; John Jay Joyce, 47 McDougall street, all of New York; A. Voorhees Moore, Jersey City, N. J.

M. J. Cunningham Company, Niagara and Berlin streets, Newark, N. J. Sheet metal workers, mechanical engineers, etc. Capital, \$50,000. Incorporators: Michael J. Cunningham, 26 Rowland street, Newark, N. J.; Joseph B. Carroll, Delawanna, N. J.; Albert A. Breese, Bedminster, N. J.

Owen Construction Company. To construct buildings, etc. Capital, \$20,000. Incorporators: William C. Owen, W. C. Owen, Jr., Enfield street and Atlantic avenue, Brooklyn; John B. Sabine, Brentwood, N. Y.; Edward W. Lester, 569 St. Marks avenue, Brooklyn.

Philadelphia Concrete Company of New York. Building houses, docks, bridges, etc. Capital, \$150,000. Incorporators: Frederick A. Sherwood, Philadelphia; Clinton Burling, 198 Broadway; R. W. Sprague, Jr., 32 Liberty street, both of New York.

Sea Haven Company, 322 Market street, Camden, N. J. Real estate, builders, contractors. Capital, \$100,000. Incorporators: William L. and M. W. Darnell, George D. Connelly, all as above.

Shumway Concrete Machine Company. To build with concrete. Capital, \$15,000. Incorporators: Charles C. Carpenter, Newark, N. J.; Samuel A. Williams, 423 Ninth avenue; Charles Pope Caldwell, 42 Broadway, both of New York, and others, New York.

Southern Tier Construction Company. General contractors, etc., building, etc. Capital, \$3,000. Incorporators: S. Mack Smith, Chester F. Gailor, Harmon J. Kneeland, all of Binghamton, N. Y.

Yonkers Wagon and Carriage Company. To manufacture cars, wagons, vehicles, etc. Capital, \$10,000. Incorporators: William H. Greenhalgh, Stephen T. Bell, William J. Leach, Howard Greenhalgh, all of Yonkers, N. Y.

Briar Creek Brick and Cement Company, Charlotte, N. C. Capital, \$100,000. Incorporators: J. B. McLaughlin, J. P. Carr, and others.

Newbern Light and Fuel Company, Newbern, N. C. Capital, \$100,000. Incorporators: J. H. Martin, A. D. Ward.

Utilities, Trade Notes and News

CONTRACTING FIRM.—The J. G. White Company, Limited, Sovereign Bank Building, Montreal, publish an announcement of the objects of the company, which was incorporated in Canada recently. They will carry on a general contracting and engineering business, and will undertake any civil, mechanical, electrical, hydraulic and building work.

CONCRETE MIXER.—The Municipal Engineering and Contracting Co., 9 Railway Exchange, Chicago, Ill., issue a booklet describing and illustrating their cubical concrete mixers. The advantages of this type of mixer are explained at length in an article by Clarence Coleman, C.E., which is quoted at length. These mixers are set up with a gas engine, making a self-contained concrete mixing plant. One type has a conveyor to deliver the material on the work after mixing.

EXCAVATORS.—The F. C. Austin Excavator Company, 607-612 Railway Exchange, Chicago, Ill., issue a pamphlet describing their drainage excavator. This machine is so planned that it throws the dirt up on each side as it moves itself along. The excavation is made by two wheeled buckets which cut down the slope of the ditch upon a guiding frame, which is adjusted to conform to the size and slope of the ditch. This makes a very clean cut ditch, which retains its shape, as the slope may be suited to the nature of the soil.

PULVERIZER.—The Kent Mill Company, 170 Broadway, New York, issue some pamphlets describing their pulverizer, plans for grinding plants and testimonials from customers. The pulverizer is well known and has replaced burr mills in cement and other plants on account of its capacity and economy. It will grind from two to eight tons per hour, according to material and fineness desired. This machine has been used by the Cranford Paving Company, Brooklyn, N. Y., for grinding limestone for asphalt pavements, and they give a favorable account of its work.

RECORDING MECHANISMS.—The Simplex Time Register Co., 377 Broadway, New York City, issue a handsome descriptive catalogue of their employee's time recorder and their watchman's clock. The time recorder in its standard size registers the entrance and exit of from thirty to one hundred employees. The time sheet (not disc) on which the entries are made is used in computing the time of each employee and is a record that cannot be disputed. A model recently put on the market is the "In and Out"; on this recorder the employee pushes his button sideways so that a glance at the two columns shows which employees are in. The watchman's recorder registers at a central point signals sent by a key from stations placed wherever desired. This system reduces insurance rates.

REDUCED FARES.—The Merchants' Association of New York City, 346 Broadway, have secured reduced rates for merchants desiring to visit New York during the fall of 1906. Particulars and dates are furnished in a pamphlet.

SHEET METAL.—The Berger Manufacturing Company, Canton, Ohio, issue a catalogue of their line of sheet metal goods. These include architectural sheet-metal work such as cornices and gutters; ceilings, stamped in various ways; conductor pipes; fire proofing material, including the "prong lock"; metal furniture such as desks, files and lockers; roofing, metal shingles, Spanish tile and others; siding, corrugated and beaded; besides there are miscellaneous specialties such as ventilators.

SUMMER COMFORTS.—The Fort Wayne Electric Works, Fort Wayne, Ind., issue an attractive booklet describing the Wood Fan Motors, arguing that favorable surroundings have much to do with the success of any undertaking. This company besides supplying the means for reducing temperature furnishes an artistic device for the purpose.

Binding Cases

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McWANE PIPE WORKS

Manufacturers of

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WORKS { Lynchburg, Va.
Radford, Va.Main Office
LYNCHBURG, VA.Eastern Office
220 BROADWAY, NEW YORK

Back Numbers Wanted

We are short of copies of February 21st and April 25th, 1906, of this paper. If you have them and do not want to keep them you will oblige us greatly by mailing them to the New York office.

Flatiron Building,
Madison Square

WATERPROOFING.—The Hydrex Felt and Engineering Company, 120 Liberty street, New York, issue some illustrated announcements regarding the use of their waterproofing materials in connection with the Pennsylvania terminals in New York City. Hydrex felt, made by the oldest felt makers in America, has great toughness, elasticity and strength. It may be used in layers cemented by a hot liquid compound manufactured under the same trademark. So used it is particularly adapted for water pressure and heavy work.



What Is Daus' Tip-Top?

To Prove that Daus' "Tip-Top" is the best and simplest device for making **100 Copies** from pen written and **50 Copies** from typewritten original, we will ship complete duplicator, cap size, **without deposit on ten (10) days' trial.** Price \$7.50 less trade discount 33 1/3% or **\$5 net.** THE FELIX H. A. DAUS DUPLICATOR CO., Daus Building, 111 John Street, N. Y. City

Southern White Cedar Poles

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Southern Exchange Co. 97 Warren St., N. Y.

PATENT CLAIMS

824,135.—Bascule-Bridge. Ralph E. Newton, Milwaukee, Wis. Serial No. 231,596.

A bascule-bridge comprising a substantially horizontal approach-span, a bascule or tilting arm or span pivotally mounted directly on the approach-span near the outer end thereof, a support carried by said approach-span and located outside of or beyond the pivots to engage said bascule, and a stop carried by said approach-span on that side of the pivotal point of the bascule opposite said support, the stop adapted to engage the inner or counter-weighted end of said bascule.

824,636.—Arch Construction. Andrew B. Foans, New York, N. Y. Serial No. 267,597.

The compressible separator of suitable material attached to a block or placed at the side of same, to separate the blocks and form joint substantially as set forth and described.

824,823.—Concrete-Wall House Construction. Edward E. Schackner, Denver, Col. Serial No. 269,475.

In concrete house construction, a frame of studding and sheathing, including the foundation joists, a facing-wall of concrete, and means for strengthening and anchoring said wall to said frame and to said joists, consisting of headed anchors driven into said frame and into the ends of the joists and their heads embedded in said wall, and a reinforcing anchorage of widely-spaced wires, each wire separately connected to the heads of the anchors and running from one to the other in different directions, each wire forming a brace within and throughout the body of the wall and connected to said foundation joists.

824,860.—Signboard. Albert H. Grove, Indianapolis, Ind., assignor of one-half to Harry S. Wolf, Indianapolis, Ind. Serial No. 276,610.

In a signboard of the character described, staves each comprising two members inclined toward each other, means for pivotally connecting the members of each staff at the converge point, and means connecting the members, but permitting their inclination to be changed.

824,935.—Safety Valve for Gas Pipes. Adolph W. Jenczewsky, Chicago, Ill. Serial No. 268,146.

A safety valve for gas pipes comprising a valve-casing, a movable valve-closure in said casing, means for holding the valve-closure in its open position embracing a supporting member which is destructible by heat, and an electric circuit adapted to generate heat for effecting the destruction of the said supporting member and the release of the closure.

824,891.—Ash and Garbage Can. Casper Van Hoesen, New York, N. Y. Serial No. 265,545.

In combination, a can, a plurality of outwardly-curved spring-slats applied to the sides of the can exterior thereof, and flexible means connecting the curved portions of the slats.

825,166.—Machine for Making Brick and Artificial Stone. George Wettlaufer, Stratford, Canada. Serial No. 293,651.

In a machine of the character described, the combination with a supporting frame having slotted top plates arranged thereon, of notched end-forming bars or plates adapted to be projected and retracted through said slots, side-forming bars or plates mounted to slide through the notches in said end plates, brackets for supporting said bars or plates when moved outward, means to operate said bars or plates, and means to press the tops of the molded brick or stone, substantially as described.

825,200.—Excavating Apparatus. George H. Dunlop, South Melbourne, Victoria, Australia. Serial No. 189,842.

In combination in apparatus for excavating, dredging and transporting earth and other materials, a main power station and an out-haul station in one structure, a scraper and power mechanism and three ropes for operating said scraper whereby earth may be filled into the scraper by hauling it forward, transported in it by hauling it backward and deposited from it by overturning it forward, substantially as described.

825,243.—Manufacture of Artificial Stone Pipes, Tiles, Etc., and Apparatus Therefor. Emil H. Rieter-Dodmer, Kyburg, Switzerland. Serial No. 226,021.

Apparatus for the manufacture of artificial stone articles from liquid cement mixtures, comprising a rigid metal mold having drainage passages leading from the molding-face of the mold to the exterior thereof, a complementary form to be pressed into the same and a liner for said mold composed of superposed wire nets of different sized mesh, the coarsest net lying next to the face of the mold, said nets mutually supporting each other and forming drainage passages between the article being molded and the face of the mold whereby the liquid expressed will be drained to and through the perforation.

Proposals

Lighting of Streets

Office of the Mayor,
Anniston, Alabama, July 17, 1906.

BIDS WANTED

Sealed proposals, in duplicate, will be received at this office until 12 o'clock, noon, September 20, 1906, for furnishing a minimum of one hundred (100) electric arc lights, to be located under the direction of the Mayor and City Council, on the streets of Anniston, maintaining same and supplying current for the lighting thereof nightly until 10 o'clock p. m., and during all dark hours after said hour, for terms of ten, twenty and thirty years, beginning July 1, 1908. Consumption of electric current at the arc of said lamps must be given, and in all bids must be given a bid for lamps consuming 450 watts at the lamp terminals. The award of this contract will carry with it a franchise for the privilege of supplying electric current for all purposes to corporations and private citizens, and rates at which said current will be sold must be made a part of each proposition. A certified check on a responsible bank for one thousand (\$1,000) dollars must accompany each bid as a guarantee that a contract, under \$15,000 bond, will be entered into within thirty days after the award thereof, for the purpose of carrying out the terms of the contract. The city reserves the right to reject any and all bids.

THOMAS E. KILBY,
Mayor.

Destructors for Edmonton

City of Edmonton, Alta. Tenders for Refuse Destructors.

Tenders are invited for destructors for the city sanitary department.

Present population approximately 12,000. Propositions and plans to be fully descriptive of capacity, etc., with arrangements for readily extending the plant.

Tenders and plans addressed "City Commissioners, Edmonton," to be delivered not later than Monday, 6th August, 1906.

GEORGE J. KINNAIRD,
Secretary-Treasurer.
Edmonton, June 25, 1906.

Poles and Wires

Coal Dale Borough intends to wire and pole the Borough for street and house light. Would like to meet a party who could give an estimate of the cost of this work.

CON F. BONER, Secy.

Street Lighting

Sealed proposals will be received by the Town Council of Pottsville, Pa., until 7.30 p.m., on Tuesday, Sept. 18, 1906, for lighting the streets of the borough and borough buildings with either electricity or gas for a period of five years from February 15, 1907.

"Bids for electric lighting to be for 137 or more arc lights and 50 or more incandescent lights for streets, with extra bids for buildings.

"Successful bidder to furnish approved bond in the sum of ten thousand dollars, conditioned for faithful performance of contract.

"A certified check for \$2,500 to accompany each bid, which shall be forfeited on failure to execute said bond and contract. Candle power and character of lamp to be designated in bid. Council reserves the right to reject any or all bids or parts of bids."

By order of Town Council.

Attest:—G. A. BERNER, Town Clerk.
Pottsville, June 19, 1906.

Street Paving

SEALED PROPOSALS will be received by the Town Council of Pottsville, Pa., until 7.30 o'clock p. m. on Tuesday, July 31, for STREET PAVING with vitrified brick, amounting to about 7,000 or 8,000 square yards.

Paving to be done according to plans and specifications to be furnished by the Borough Engineer, Wm. S. Pugh.

Brand or name of brick to be specified and sample submitted with bid. Bids must be submitted on blanks to be furnished by the Borough Engineer.

Successful bidder to give bond with approved security for faithful performance of contract.

Council reserves the right to reject any or all bids or parts of bids.

By order of Town Council.

Attest:—G. A. BERNER, Town Clerk.
Pottsville, Pa., July 3, 1906.

Notice to Contractors.

Office of the Mayor,
Anniston, Ala., July 21, 1906.

Sealed proposals will be received by the undersigned until 12 o'clock noon, August 8, 1906, for paving Noble street, from Ninth to Thirteenth streets inclusive, with either vitrified brick or Bitulithic.

A certified check for \$500, made payable to the city of Anniston, must accompany each proposal.

The right is reserved to reject any or all proposals. Specifications may be obtained from the undersigned.

THOS. E. KILBY,
Mayor.

Power Plant

Idaho Falls, Idaho.

Sealed proposals will be received at the office of the City Clerk of Idaho Falls, Idaho, until Monday, July 30, 1906, at 8 o'clock P.M., for the construction of a power plant on Snake River for the City of Idaho Falls, requiring the building of about 2,000 cubic yards of concrete masonry and the placing of 50 tons of steel reinforcement and structural steel, together with other accessory work.

Plans, specifications and proposal blanks may be obtained from the City Clerk of Idaho Falls, or may be inspected at the office of A. J. Wiley, at Boise, Idaho.

E. P. COLTMAN, Mayor.
D. G. PLATT, City Clerk.

Brick Paving

Independence, Kans.

Sealed bids will be received at the office of the City Clerk of Independence, Kansas, up to 3 p. m., August 14, 1906, for the construction of brick pavement, the estimated amount of work being as follows:

Excavation, 8,500 cubic yards.
Concrete curb and gutter combined, 4,622 lineal feet.

Brick paving, 16,751 square yards.

Bids must state price per cubic yard for excavation, price per lineal foot for curb and gutter and price per square yard for paving. Each bid must be accompanied by cash, or certified check on one of the local banks in the sum of five per cent. of the total contract price.

Plans and specifications on file at the office of the City Clerk.

Bids to close at 3 p. m., August 14, 1906. The city reserves the right to reject any or all bids.

T. N. SICKELS,
City Clerk.

Sewer and Sluice Gates

Office of the Municipal Board,
Manila, P. I., June 30, 1906.

Sealed bids or proposals will be received until 12 m., September 12, 1906, for furnishing and delivering at ship's side in Manila, P. I., sewer gates and sluice gates for use in the proposed sewerage system of the city, in accordance with the plans and specifications on file in the office of said Board. The total number of gates proposed for use by the city amounts to 413, ranging in size from 8 inches to 20 inches in diameter.

Each proposal must be accompanied by a certified check for \$1,000, drawn on a bank established in Manila, and made payable to the Municipal Board of the City of Manila. For the convenience of bidders in the United States, said check may be deposited with the Bureau of Insular Affairs at Washington, D. C., in which event it may be drawn on a Washington or New York bank.

Specifications, instructions to bidders, general plans, and blank forms of proposals may be obtained at the office of the Board, Manila, P. I., or at the Bureau of Insular Affairs, Washington, D. C.

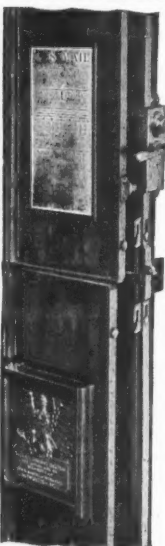
The right is reserved to reject any or all bids.

JOHN M. TUTHER,
Secretary of the Municipal Board.
J. F. CASE, Chief Engineer.

FOUNDATION OF ROADS is the subject now under most earnest investigation by Engineers throughout the World; poor foundations and good surfaces are found everywhere—result, short lived roads. THERE IS NOT ONE FOUNDATION ON THE MARKET TO-DAY THAT PROPERLY SUPPORTS THE SURFACE. The steel rail and the wooden cross tie is always the same, but the highway is a different thing; different surfaces and different foundations are required for different services. We have these different foundations; they DO properly support the surface, and, IN OTHER WAYS, they give a life to the surface that was never before even contemplated. **The Nash Road**, Borough of Brooklyn, N. Y. City, U.S.A.

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SPECIAL NOTICE

In the respective following issues of the Municipal Journal and Engineer considerable space will be devoted specially to the subjects as indicated:—

—1906—

- August 1st - - - SANITATION
—Smoke Prevention, Street Sprinkling and Cleaning.
- September 5th - - - THE CITY BEAUTIFUL
—Parks, Monuments, etc.
- October 3d - - - FIRE AND POLICE
—Gas, Electricity, Etc.
- November 7th - - - LIGHTING
- December 5th - - - BRIDGES

BOOKS YOU SHOULD HAVE

On Street and Road Construction, Sewer Systems, and Water Supply

- CITY ROADS AND PAVEMENTS SUITED TO CITIES OF MODERATE SIZE.** Second edition, revised and enlarged.—By W. P. Judson. 200 pp. \$2.00.
- STREET PAVEMENTS AND PAVING MATERIALS.**—A Manual of City Pavements: the Methods and Materials of their Construction. For the Use of Students, Engineers, and City Officials. By Geo. W. Tillson, C. E. 8vo, xii + 532 pages, 60 figures. Cloth; \$4.00.
- A TREATISE ON ROADS AND PAVEMENTS.**—By Ira Osborn Baker, C. E. 8vo, viii + 655 pages, 171 figures, 68 tables. Cloth; \$5.00.
- THE MODERN ASPHALT PAVEMENT.**—By Clifford Richardson. 8vo, 580 pages. Cloth; \$3.00.
- HIGHWAY CONSTRUCTION.**—A Treatise on Highway Construction, Designed as a Text-book and Work of Reference for All Who May be Engaged in the Location, Construction, or Maintenance of Roads, Streets, and Pavements. By A. T. Byrne, C. E. Fourth Revised and Enlarged Edition. 8vo, xi + 895 pages, 306 illustrations. Cloth; \$5.00.
- MUNICIPAL PUBLIC WORKS: THEIR INCEPTION, CONSTRUCTION, AND MANAGEMENT.**—By S. Whinery, C. E. 341 pages. Cloth; \$1.50.
- ENGINEERING CONTRACTS AND SPECIFICATIONS.** Including a Synopsis of the Law of Contracts; engineering specifications and accompanying documents; specific, descriptive, or technical clauses in specifications, including illustrated specifications for excavations and embankments; cement, mortar, concrete and masonry; street pavements and materials; sewers; water pipe; electric light station, etc.—By Prof. J. B. Johnson. 6 x 9 in.; 566 pp. \$3.00.
- SEWER DESIGN.**—By H. N. Ogden, C. E., Asso. M. Am. Soc. C. E. 12mo, xi + 234 pages, 54 figures, 5 plates. Cloth; \$2.00.
- SEWERAGE.**—The Designing, Construction, and Maintenance of Sewerage Systems. By A. Prescott Folwell, M. Am. Soc. C. E. Fifth Edition, Revised and Enlarged. 8vo, x + 455 pages, illustrated. Cloth; \$3.00.
- SEWERS AND DRAINS FOR POPULOUS DISTRICTS;** With Rules and Formulae for the Determination of Their Dimensions Under all Circumstances.—By Julius W. Adams, C. E. One vol. 8vo, 228 pp., 84 illustrations and one folding map. Cloth; \$2.50.
- PLAT AND PROFILE BOOK FOR CIVIL ENGINEERS AND CONTRACTORS.** Containing 28 pages of Profile Paper and also handy tables for Excavation and Embankment, Strength of Materials, Size of Sewer for Various Slopes and Drainage Areas, and information for making Estimates in Electric Construction.—By H. F. Dunham. Flexible leather, oblong; 9 x 4 ins. \$1.00.
- EARTHWORK AND ITS COST.**—By L. P. Gillette. Cloth; 5 x 7 1/2 ins.; 256 pp.; illustrated. \$2.00.
- ROCK EXCAVATION METHODS AND COST.**—By Halbert P. Gillette, Author of "Earthwork and Its Cost." Cloth; 5 x 7 1/2 ins.; 384 pp. \$3.00.
- THE ELEMENTS OF WATER SUPPLY ENGINEERING.**—By E. Sherman Gould. 6 x 9 in.; 168 pp. \$2.00.
- WATER-FILTRATION WORKS.**—By James H. Fuertes, member Am. Soc. C. E. 12mo, xviii + 283 pages, 45 figures and 20 half-tones; \$2.50.
- WATER-WORKS FOR SMALL CITIES AND TOWNS.** Describing the methods of construction of the various portions of a water-works plant. —By John Gooddell. 281 pages, 53 illustrations. Price, \$2.00 net.
- THE PURIFICATION OF PUBLIC WATER SUPPLIES.**—By John W. Hill, M. Am. Soc. C. E. 8vo. Cloth; 304 pages; 35 illustrations. \$3.00.
- WATER-SUPPLY ENGINEERING.**—By A. Prescott Folwell. Second Edition, Revised and Enlarged. 8vo, xiv + 570 pages, illustrated with 95 figures and 19 full-page plates. Cloth; \$4.00.
- WATER-WORKS DISTRIBUTION: A Practical Guide to the Laying Out of Systems of Distributing Mains for the Supply of Water to Cities and Towns.**—By J. A. McPherson, A. M. Inst. C. E. 8vo. Cloth, with Folding Plates, Diagrams and Illustrations. Price, \$2.50.
- THE EXAMINATION OF WATER AND WATER SUPPLIES.**—By John C. Thresh. 460 pages, numerous plates and illustrations. Price, \$2.15.
- PUBLIC WATER SUPPLIES.**—By F. E. Turneaure, C. E., and H. L. Russell, Ph. D. With a Chapter on Pumping-machinery, by D. W. Mead, C. E., M. Am. Soc. C. E. 8vo, xiv + 746 pages, 231 figures. Cloth; \$5.00.
- A PRACTICAL TREATISE ON WATER-SUPPLY ENGINEERING:** Relating to the Hydrology, Hydrodynamics, and Practical Construction of Water-Works in North America. With numerous Tables and Illustrations. —By J. T. Fanning, C. E., Member of the Am. Soc. C. E. Seventh Edition, Revised, Enlarged, and New Tables and Illustrations added. 644 pages, 200 illustrations, fine Cloth binding. Price, \$5.00.
- SOME DETAILS OF WATER-WORKS CONSTRUCTION.**—By W. R. Billings. 96 pages, 28 illustrations. Price, \$2.00 net.
- EARTH AND ROCK EXCAVATION: A Practical Treatise.**—By Charles Prelmi, C. E., Author of "Tunneling." With Tables, and many Diagrams and Engravings. 8vo. Cloth. Illustrated. About 365 pages. Price, \$3.00 net.
- CEMENT AND CONCRETE.**—A Treatise Designed Especially for American Engineers, Covering the Manufacture, Properties and Testing of Cement, and the Preparation and Use of Cement Mortars and Concretes. Special Attention is Given to the Costs of Cement and Concrete for Different Uses and Under Various Conditions. By Louis Carlton Sabin. 504 pages, 161 tables of tests. Price, \$5.00 net.

Any of the above or any book in print sent promptly on receipt of price.

MUNICIPAL JOURNAL AND ENGINEER

Flatiron Building, Madison Square, New York